

BRIGHAM YOUNG
UNIVERSITY



Annual Catalog Issue
1959-60

LIBRARY

Brigham Young University

ZU
78
76
959-60



GIFT OF

Digitized by the Internet Archive
in 2010 with funding from
Brigham Young University



This catalog is for information only and may be changed by the University Administration in any particular without creating obligations to students or faculty.

Symbols Used

Courses fulfilling general education requirements in each of five basic areas:

- (G-BS) Biological Science
- (G-HA) Humanities and Aesthetics
- (G-PS) Physical Science
- (G-R) Religion
- (G-SS) Social Science

- † A general education course which has a prerequisite
- * In Administration and Faculty section and in departmental faculty listings, faculty member on leave during the current school year
In other sections of catalog, footnote reference
- ** Footnote reference
- *** Footnote reference
- **** Footnote reference

Brigham Young University Bulletin. Re-entered January 12, 1959, at Provo, Utah, as second-class matter under act of Congress of July 16, 1904. Accepted for mailing at special rate of postage provided for in Section 1703, Act of October 3, 1917; authorized July 30, 1918. Published six times during January, February, March and April, four times during May and September; and twice during June, October, November, and December. Second-class postage paid at Provo, Utah.

Brigham Young University Bulletin



CATALOG OF COURSES

1959-60

Published by
Brigham Young University
Provo, Utah

Table of Contents

Information Directory	Inside Front Cover
University Calendar	1
Administration and Faculty	3
Objectives	38
Brigham Young University—Past and Present	39
Requirements for Admission	52
Requirements for Undergraduate Work	53
Requirements for Graduation	56
University Fees	65
Student Personnel Services	71
Auxiliary Services	83
Colleges, School	88
College of Biological and Agricultural Sciences	89
College of Business	92
College of Education	94
College of Family Living	113
College of Fine Arts	117
General College	118
College of Humanities and Social Sciences	125
College of Nursing	131
College of Physical and Engineering Sciences	134
College of Recreation, Physical and Health Education, and Athletics	136
College of Religious Instruction	138
Graduate School	140
List of Courses	148
Accounting	150
Agricultural Economics	156
Agronomy	159
Air Science	162
Animal Husbandry	166
Archaeology	171
Art	175
Bacteriology	181
Bible and Modern Scripture	184
Biblical Languages	187
Botany	188
Business Education and Office Management	192
Business Management	198
Chemical Engineering Science.....	205
Chemistry	208
Civil Engineering Science	213
Clothing and Textiles	218
Economics	222

TABLE OF CONTENTS

v

Economics and Management of the Home	225
Educational Administration	228
Educational Philosophy and Programs	230
Educational Research and Services	232
Electrical Engineering Science	236
English	241
Family Living, General	250
Food and Nutrition	252
Forum Assemblies	257
Geography	258
Geology and Geological Engineering Science	261
Health Education	267
History	270
History and Philosophy of Religion	275
Homemaking Education	278
Horticulture and Horticultural Specialties	282
Housing and Design	285
Human Development and Family Relationships	288
Humanities	295
Industrial Education	297
Instruction	301
Journalism	307
Languages	312
L.D.S. Theology, Church Organization and Administration	322
Library Science	325
Mathematics	327
Mechanical Engineering Science	331
Music	336
Nursing	348
Physical Education	351
Physical Science	363
Physics	364
Political Science	370
Psychology	375
Recreation	380
Religious Education	384
Sociology	385
Speech and Dramatic Arts	390
Technical and Semi-Professional Institute	398
Youth Leadership	405
Zoology and Entomology	407
Adult Education and Extension Services	412
Statistical Summaries	422
Index	427
Map of the Campus	Inside Back Cover

1959

	S	M	T	W	T	F	S
JAN.	4	5	6	7	8	9	10
	1	2	3	4	5	6	7
JULY	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	
FEB.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
MAR.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
APR.	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30		
OCT.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
MAY	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
JUNE	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
NOV.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30					
DEC.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				

1960

	S	M	T	W	T	F	S
JAN.	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
FEB.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
MAR.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
APR.	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
MAY	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
JUNE	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
JULY	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
AUG.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
SEP.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
OCT.	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31					
NOV.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
DEC.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				

University Calendar

Although as accurate as possible at the time of the printing of this catalog, the calendar is subject to change at the discretion of the university administration.

1959-60

Autumn Quarter

September 17, 18, 19 (Thursday, Friday, Saturday): Utah Conference on Higher Education.

September 21, 22 (Monday, Tuesday): Faculty workshop and first regular faculty meeting.

September 21, 22, 23, 24 (Monday, Tuesday, Wednesday, Thursday): Orientation and placement tests for all freshmen and sophomores who will register at B.Y.U. for the first time. Late fees will be charged all new students who fail to appear for these tests, which begin Monday, September 21, at 1:30 p.m. in the George Albert Smith Fieldhouse.

September 25, 26 (Friday, Saturday): Registration for all regular and special students. Students will register in an alphabetical order to be announced. A late fee will be charged all students registering after this date.

September 28 (Monday): Class instruction begins.

October 3 (Saturday): Junior English Proficiency Examination.

October 12 (Monday): Last day for currently enrolled students to enter new classes.

October 16 (Friday): Last day on which late registration may occur for Autumn Quarter.

October 24 (Saturday): Homecoming.

November 6 (Friday): Last day for dropping classes without receiving a failing grade.

November 9 through December 11: Registration for Winter Quarter.

November 18 (Wednesday): Students withdrawing from school after this date must be doing passing work in each class if they are to discontinue the class without academic failure.

November 26, 27 (Thursday, Friday): Thanksgiving recess.

December 15, 16, 17, 18 (Tuesday, Wednesday, Thursday, Friday): Examination period.

December 18 (Friday): Autumn Quarter closes.

Winter Quarter

January 4 (Monday): Class instruction begins.

January 9 (Saturday): Junior English Proficiency Examination.

January 15 (Friday): Last day for currently enrolled students to enter new classes.

January 22 (Friday): Last day on which late registration may occur for Winter Quarter.

February 5 (Friday): Last day for dropping classes without receiving a failing grade.

February 15 through March 11: Registration for Spring Quarter.

March 14, 15, 16, 17 (Monday, Tuesday, Wednesday, Thursday): Examination period.

March 17 (Thursday): Winter Quarter closes.

Spring Quarter

March 21 (Monday): Class instruction begins.

March 26 (Saturday): Junior English Proficiency Examination.

April 1 (Friday): Last day for currently enrolled students to enter new classes.

April 8 (Friday) Last day on which late registration may occur for Spring Quarter.

April 29 (Friday): Last day for dropping classes without receiving a failing grade.

May 2 (Monday): Students desiring to enter the Summer Session who have not previously attended B.Y.U. should submit their applications for admission on or before May 2.

May 13 (Friday): Students withdrawing from school after this date must be doing passing work in each class if they are to discontinue the class without academic failure.

May 28 (Saturday): Senior Day.

May 30, 31, June 1, 2 (Monday, Tuesday, Wednesday, Thursday): Examination period.

June 2 (Thursday): Baccalaureate Services.

June 3 (Friday): Alumni Day. Eighty-fifth Commencement Exercises.

Summer Quarter

June 13 (Monday): Registration for Summer Quarter.

June 14 (Tuesday): Class instruction begins.

June 18 (Saturday): Junior English Proficiency Examination.

July 15 (Friday): First Summer Term closes.

July 18 (Monday): Registration for Second Term. Class instruction begins.

August 19 (Friday): Second Summer Term ends.

All undergraduate colleges and the Graduate School offer a full quarter of work in the summer.

The Summer Quarter is divided into terms so that in special cases students may be in attendance only part of the summer, if they desire, without hindrance to the completion of their courses. Both regular terms of the Summer Quarter are held on the Provo Campus.

The Summer Quarter provides the opportunity for persons who are employed during the usual nine months of schooling to pursue graduate work. It provides regular students the opportunity to complete requirements for graduation in a shorter time than four years. All facilities of the university are available during the Summer Quarter.

Evening Classes

Evening classes correspond to the above official calendar.

Administration and Faculty

Board of Trustees of Brigham Young University

DAVID O. McKAY President
 STEPHEN L RICHARDS First Vice-President
 J. REUBEN CLARK, JR. Second Vice-President

JOSEPH FIELDING SMITH
 HAROLD B. LEE
 SPENCER W. KIMBALL
 EZRA TAFT BENSON
 MARK E. PETERSEN
 HENRY D. MOYLE
 DELBERT L. STAPLEY
 MARION G. ROMNEY
 LeGRAND RICHARDS
 RICHARD L. EVANS
 GEORGE Q. MORRIS
 HUGH B. BROWN
 CLYDE D. SANDGREN, Secretary

Executive Committee of Brigham Young University Board of Trustees

JOSEPH FIELDING SMITH
 HAROLD B. LEE
 HENRY D. MOYLE
 MARION G. ROMNEY
 HUGH B. BROWN
 ERNEST L. WILKINSON
 CLYDE D. SANDGREN, Secretary

University Administrative Officers

MEMBERS OF THE ADMINISTRATIVE COUNCIL

President Ernest L. Wilkinson
 Administrative Assistant Joseph T. Bentley
 Assistant to the President in Charge of University
 Development William Noble Waite*
 Vice-President William E. Berrett
 Vice-President Earl C. Crockett
 Vice-President Harvey L. Taylor
 General Counsel Clyde D. Sandgren

DEANS OF COLLEGES

Biological and Agricultural Sciences, Acting Dean Merrill J. Hallam
 Business Weldon J. Taylor

*Not on Administrative Council

Education	Asahel D. Woodruff
Assistant Dean	Antone K. Romney
Family Living	Jack B. Trunnell
Fine Arts	Gerrit de Jong, Jr.
General College	Wayne B. Hales
Humanities and Social Sciences	Leonard W. Rice
Nursing	L. Bernice Chapman
Physical and Engineering Sciences	Armin J. Hill
Recreation, Physical and Health Education, and Athletics	Milton F. Hartvigsen
Religious Instruction	David H. Yarn, Jr.

DEAN OF STUDENTS

Dean	Wesley P. Lloyd
Assistant Dean	Howard T. Reid

DEANS AND DIRECTORS OF SCHOOLS

Graduate School, Dean	
Summer School, Director	Dean A. Peterson

DIRECTOR OF DIVISION

Research Division	H. Tracy Hall
-------------------------	---------------

ADMINISTRATIVE OFFICERS OF OTHER ACADEMIC UNITS

Adult Education and Extension Services, Dean	Harold Glen Clark
Assistant to the Dean	Phileon B. Robinson, Jr.
Audio-Visual Aids, Acting Chairman	Evan Memmott
B.Y.U.-Ogden Adult Education Center, Chairman	George S. Haslam
B.Y.U.-Ricks Adult Education Center, Chairman	J. Kenneth Thatcher
B.Y.U.-Salt Lake Adult Education Center, Chairman	Lynn M. Hilton
Home Study, Chairman	Lula Clegg
Off-Campus Instruction, Chairman	Richard H. Henstrom
On-Campus Adult Education, Chairman	Sherman B. Sheffield
Travel Studies, Chairman	Jay B. Hunt
Laboratory Schools, Director	Avard A. Rigby
Libraries, Director	S. Lyman Tyler
Administrative Assistant	James R. Tolman
Coordinator for Technical Services	Naoma Rich
Coordinator for Reader Services	Hattie M. Knight
Librarian, Science Library	William Nash
Librarian, Life Sciences Library	Carol Smith
Librarian, High School Library	June Berry
Librarian, Elementary School Library	Carma Sandberg
University Archivist	Ralph Hansen

CHAIRMEN OF DEPARTMENTS OF INSTRUCTION

Accounting	Robert J. Smith
------------------	-----------------

Agricultural Economics	Ivan L. Corbridge
Agronomy	R. Chase Allred
Air Science	Lt. Colonel William J. Gibson
Animal Husbandry	Lawrence Morris
Archaeology	M. Wells Jakeman
Art	Conan E. Mathews
Bacteriology	David M. Donaldson
Bible and Modern Scripture	Daniel H. Ludlow
Biblical Languages	Sidney B. Sperry
Botany	Kent H. McKnight
Business Education and Office Management	Lars G. Crandall
Business Management	Clinton L. Oaks
Chemical Engineering Science	Billings Brown
Chemistry	Keith P. Anderson
Civil Engineering Science	Dean K. Fuhrman
Clothing and Textiles	Eleanor Jorgensen
Economics	Glen T. Nelson
Economics and Management of the Home	Vesta W. Barnett
Educational Administration	Keith R. Oakes
Educational Philosophy and Programs	Stephen R. Alley
Educational Research and Services	Robert L. Egbert
Electrical Engineering Science	Jens J. Jonsson
English	Ralph A. Britsch
Food and Nutrition	Marian Bennion
Geography	Albert L. Fisher
Geology and Geological Engineering Science	Kenneth C. Bullock
Health Education	David D. Geddes
History	Richard D. Poll
History and Philosophy of Religion	Truman G. Madsen
Homemaking Education	Virginia Poulson
Horticulture and Horticultural Specialities	Ernest F. Reimschuessel
Housing and Design	Elizabeth L. Gardner
Human Development and Family Relationships	Blaine M. Porter
Industrial Arts and Drawing	Guy Pierce
Instruction	Dean C. Christensen
Intercollegiate Athletics	Edwin R. Kimball
Journalism	Oliver R. Smith
Languages	Harold W. Lee
L.D.S. Theology, Church Organization and Administration	G. Byron Done
Library Science	Hattie M. Knight
Mathematics	Harvey J. Fletcher
Mechanical Engineering Science	John M. Simonsen
Music	John R. Halliday
Physical Education for Men	Blauer L. Bangerter
Physical Education for Women	Leona Holbrook
Physics	E. John Eastmond
Political Science	Stewart L. Grow
Psychology	Mark K. Allen
Recreation	Israel C. Heaton
Religious Education	B. West Belnap

Sociology	Reed H. Bradford
Speech and Dramatic Arts	Harold I. Hansen
Youth Leadership	Royal B. Stone
Zoology and Entomology	C. Lynn Hayward

ADMINISTRATIVE OFFICERS, NON-INSTRUCTIONAL UNITS

Admissions and Records	
Admissions Officer	Orrin H. Jackson
Machine Accounting, Manager	Richard Dayhuff
Records and Registration Officer	Lucile Spencer
Veterans' Coordinator	Richard K. Grover
Students, Dean	Wesley P. Lloyd
Assistant Dean	Howard T. Reid
Academic Standards, Chairman	Selby G. Clark
Counseling Service, Chairman	Clyde A. Parker
Counselor for Women	
Foreign Students, Adviser	Ariel S. Ballif
Indian Students, Adviser	Robert F. Gwilliam
Men's Housing Program, Director	Blaine P. Parkinson
Placement Bureau, Director	B. Keith Duffin
Security Officer	Leonard E. Christensen
Special Student Problems, Adviser	Alma W. King
Student Health Services, Director	Richard A. Nimer
Student Organizations, Coordinator	Paul E. Felt
Student Personnel Assistant	Kenneth Lauritzen
Women's Housing Program, Director	Cleo McCracken
Treasurer, University	Kiefer B. Sauls
Accountant, University	C. Joseph Rowberry
Ticket Bureau, Director	Floyd R. Taylor
Alumni Relations, Director	Raymond E. Beckham
Director of Alumni Funds	Ronald G. Hyde
Auxiliary Services, Director	Ben E. Lewis
Food Service, Manager	Wells Cloward
Photo Studio, Manager	Don Pugmire
Purchasing Agent	C. R. Peterson
Mail Service, Post Office, Purchasing, Receiving	
Student Housing, Director	Fred A. Schwendiman
University Press, Manager	Franklin R. Haymore
Motion Picture Production, Director	Wetzel O. Whitaker
Physical Plant, Director	Sam F. Brewster
Planning Division, Principal Architect	Richard H. Johnson
Construction Division, Construction Engineer	W. L. Westman
Maintenance and Operations Division,	
Assistant to the Director	Cecil R. Oak
Public Relations, Director	Lester B. Whetten
Booking University Attractions, Chairman	James H. Lawrence
Civic and Church Organization Relations, Chairman	Lester B. Whetten
Devotional Assemblies, Chairman	Herald R. Clark
Faculty Speakers Bureau, Chairman	C. LaVar Rockwood

High School Relations, Chairman	Dale L. Nelson
Junior College Relations, Chairman	Lester B. Whetten
Lyceums and Musicals, Chairman	Herald R. Clark
Press Relations, Chairman	Edwin J. Butterworth
Program Bureau, Chairman	James H. Lawrence
Program Coordinator	Jane Thompson
Radio and Television Programs, Chairman	Owen S. Rich
Servicemen's Letter Committee, Chairman	T. Earl Pardoe
University and Professional Relations, Chairman	Lester B. Whetten
University Publications, Chairman	Ernest LeRoy Olson
Scheduling of Extracurricular Events, Chairman	Wesley P. Lloyd
Scholarships, Fellowships, and Academic Grants, Chairman	Wesley P. Lloyd
Students Supply	
Chairman of the Board	Herald R. Clark
Manager	H. Neil McKnight

Councils

UNIVERSITY COUNCIL

The University Council consists of the administrative council and all members of the faculty with the rank of professor, associate professor, or assistant professor. The University Council is the legislative body of the faculty. Subject to the powers reserved by the Board of Trustees and those exercised either by the president or the Deans' Council, the University Council determines policy and procedure affecting the University and its subdivisions.

DEANS' COUNCIL

The Deans' Council consists of the administrative council, all deans, and the directors of schools and divisions.

GRADUATE COUNCIL

The chief administrative body of the graduate faculty is the Graduate Council, which consists of (1) the academic vice-president of the university, the dean of the Graduate School, and the director of research, ex officio; (2) four members of the graduate faculty elected at large for terms of three years; and (3) nine members of the graduate faculty, one elected from each of the nine colleges in which there are departments offering graduate work.

THE EXTENSION SERVICES COUNCIL

The Extension Services Council is an advisory body for the Adult Education and Extension Services.

The Faculty

Emeriti

- Lillian C. Booth** Assistant Professor Emeritus in Student
Personnel Services
B.S., M.S., Brigham Young University, 1940, 1950.
- Clarence S. Boyle** Professor Emeritus of Marketing
B.S., Brigham Young University, 1924; M.S., Ed.D., New York University, 1926,
1941.
- William H. Boyle** Professor Emeritus of Education
B.A., M.A., Brigham Young University, 1913, 1923.
- Ella Larsen Brown** Librarian Emeritus
- Gustave O. Buggert** Assistant Professor Emeritus of Music
- Elsie C. Carroll** Associate Professor Emeritus of English
B.S., M.A., Brigham Young University, 1926, 1928.
- Benjamin F. Cummings** Professor Emeritus of Modern and
Classical Languages
B.A., University of Utah, 1913.
- Norman Dunn** Instructor Emeritus in English
King's Scholar, M.R.S.T., Saitley College, Birmingham, England, 1902-04, 1922.
- Flora D. Fisher** Instructor Emeritus in Elementary School
B.S., M.S., Brigham Young University, 1936, 1949.
- May C. Hammond** Assistant Professor Emeritus of Education
B.S., M.S., Brigham Young University, 1934, 1949.
- William F. Hansen** Assistant Professor Emeritus of Music
B.S., M.S., Brigham Young University, 1936, 1937.
- John E. Hayes** Registrar Emeritus
B.S., Brigham Young University, 1924.
- Harrison Val Hoyt** Professor Emeritus of Accounting
B.S., Purdue University, 1913; M.B.A., Harvard University, 1917; Ph.D., Stanford
University, 1931.
- Christen Jensen** Professor Emeritus of History and Political
Science, Dean Emeritus of the Graduate School
and President Emeritus of the University
B.A., University of Utah, 1907; M.A., Harvard University, 1908; Ph.D., University of
Chicago, 1921.
- Bent F. Larsen** Professor Emeritus of Art
B.A., Brigham Young University, 1912; M.A., University of Utah, 1922.
- John W. McAllister** Instructor Emeritus in Education
and Public School Music
B.A., Brigham Young University, 1927.
- Florence Jepperson Madsen** Professor Emeritus of Music
B.M., M.M., Chicago Musical College, 1926, 1927; Doctor of Music, Boguslawski Col-
lege of Music, 1932; B.A., Brigham Young University, 1934; M.M., hon. Doctor of
Music, Chicago College of Music, 1933.
- Franklin Madsen** Professor Emeritus of Music
B.A., M.A., Brigham Young University, 1925, 1931; B.M., 1926; M.M., 1927; B.M.E.,
1928; Mus. Doc., 1929; M.M.E., 1932; hon. Doctor of Music Education, Boguslawski
College of Music, 1933; hon. Doctor of Music Education, Chicago College of Music,
1934.
- Georgia Maeser** Assistant Professor of Education
B.S., Brigham Young University, 1928; M.A., Columbia University, 1938.

- T. Earl Pardoe** Professor Emeritus of Speech
B.A., Brigham Young University, 1925; M.A., University of Southern California, 1931; Ph.D., University of Louisiana, 1936.
- Hermese Peterson** Professor Emeritus of Education
B.S., Brigham Young University, 1928.
- M. Wilford Poulson** Professor Emeritus of Psychology
B.A., Brigham Young University, 1914; M.A., University of Utah, 1919.
- J. Wyley Sessions** Professor Emeritus of Religious Philosophy
B.S., Utah State University, 1911; M.A., University of Idaho, 1928.
- William H. Snell** Professor Emeritus of Industrial Arts
B.A., M.S., Brigham Young University, 1918, 1939.
- Joseph Sudweeks** Associate Professor Emeritus of Religion
B.S., University of Idaho, 1912; M.A., University of Chicago, 1920; Ph.D., University of Wisconsin, 1925.
- Margaret Summerhays** Assistant Professor Emeritus of Music
Graduate, New England Conservatory of Music, 1916; B.A., Brigham Young University, 1936.
- Effie Warnick** Professor Emeritus of Home Economics
B.S., Utah State University, 1914; M.S., Iowa State College, 1937.

Members of the Instructional and Administrative Staff

- George M. Addy** Assistant Professor of History (1957)
B.A., M.A., Brigham Young University, 1948, 1950; Ph.D., Duke University, 1957.
- Lorna Call Alder** Assistant Professor of Education (1949)
B.S., Brigham Young University, 1935; M.A., Columbia University, 1940.
- Zane G. Alder** Instructor in English (1955)
B.S., M.S., Utah State University, 1948, 1956.
- A. Lester Allen** Assistant Professor of Zoology (1954)
B.A., Ph.D., University of California at Los Angeles, 1946, 1951.
- Mark K. Allen** Professor of Psychology (1946)
B.A., Brigham Young University, 1926; M.A., Stanford University, 1935; Ph.D., Stanford University, 1955.
- Stephen L. Alley** Assistant Professor of Educational Philosophy (1956)
B.S., M.S., University of Utah, 1947, 1951; Ed.D., Harvard University, 1958.
- Dorald M. Allred** Assistant Professor of Zoology and Entomology (1956)
B.A., M.A., Brigham Young University, 1950, 1951; Ph.D., University of Utah, 1954.
- Mildred E. Allred** Instructor in Nursing (1954)
Diploma, Latter-day Saints Hospital, Salt Lake City, 1925; B.S., Brigham Young University, 1943.
- R. Chase Allred** Associate Professor of Agronomy (1955)
B.S., Brigham Young University, 1948; M.S., Kansas State College, 1949; Ph.D., University of Nebraska, 1952.
- Captain Ray W. Alvord** Assistant Professor of Air Science (1958)
B.S., Utah State University, 1950; M.Ed., Stanford University, 1955.
- Mignon H. Alward** Instructor in Nursing (1953)
Diploma, Latter-day Saints Hospital, Salt Lake City, 1945; B.S., University of Utah, 1946.
- *H. Verlan Andersen** Professor of Accounting (1953)
B.S., Brigham Young University, 1940; LL.B., Stanford University, 1946; LL.M., Harvard University, 1948; C.P.A., State of Arizona, 1943. (On leave for further study and research.)
- *C. Dixon Anderson** Instructor in Modern Languages (1956)
B.A., Brigham Young University, 1953; M.A., University of Texas, 1956. (On leave for further graduate study at University of Texas.)

- Floyd M. Anderson** Associate Professor of Human Development and Family Relationships (1956)
B.S., Brigham Young University, 1950; Ed.D., Teachers College, Columbia University, 1956.
- Keith P. Anderson** Professor of Chemistry (1953)
B.A., Brigham Young University, 1946; Ph.D., Cornell University, 1950.
- *Richard L. Anderson** Assistant Professor of Religion (1955)
B.A., M.A., Brigham Young University, 1951, 1957; LL.B., Harvard University, 1954
(On leave for further graduate study.)
- Vernon L. Anderson** Associate Professor of Modern Languages (1956)
B.A., M.A., University of Utah, 1948, 1949; Ph.D., Stanford University, 1954.
- Hyrum L. Andrus** Assistant Professor of Religion (1956)
B.S., Ricks College, 1951; M.S., Brigham Young University, 1952; D.S.S., Syracuse University, 1955.
- J. Roman Andrus** Associate Professor of Art and Education (1943)
B.S., M.S., Brigham Young University, 1942, 1943; Ed.D., University of Colorado, 1958.
- Richard Andrus** Instructor in Physical Education for Men (1956)
B.S., Long Beach State College, 1952; M.Ed., Brigham Young University, 1956.
- Chris J. Apostol** Instructor in Physical Education (1959)
B.S., Utah State University, 1950.
- Evelyn Applonie** Instructor in Homemaking Education (1956)
B.S., Utah State University, 1945.
- Nina Mae Argyle** Special Instructor in Clothing and Textiles (1957)
B.S., Brigham Young University, 1955.
- Clarence D. Ashton** Associate Professor of Horticulture and Horticultural Specialities (1951)
B.S., Brigham Young University, 1929.
- S/Sgt. Ellis D. Atkinson** Instructor in Air Science (1958)
- Hyrum J. Babcock** Assistant Professor of Education (1954)
B.A., M.A., Ph.D., University of California, 1939, 1940, 1953.
- Vida R. Babcock** Assistant Professor of Nursing (1957)
Diploma, Memorial Hospital, South Bend, Indiana, 1923; B.S., M.A., New York University, 1947, 1953.
- Dale S. Bailey** Instructor in English (1955)
B.A., Brigham Young University, 1952; M.A., Columbia University, 1954.
- Ariel S. Ballif** Professor of Sociology (1938)
B.S., Brigham Young University, 1925; M.A., Ph.D., University of Southern California, 1937, 1945.
- Richard Ballou** Instructor in Music (1951)
B.A., M.A., Brigham Young University, 1948, 1953.
- Blauer L. Bangerter** Instructor in Physical Education (1953)
B.A., Brigham Young University, 1951; M.S., University of Utah, 1955.
- *Reid E. Bankhead** Assistant Professor of Religion (1949)
B.S., University of Utah, 1947; M.Th., Brigham Young University, 1949. (On leave for graduate study.)
- Sally Ann Bennett Barkdull** Instructor in Nursing (1958)
B.S., Idaho State College, 1956; M.N., University of Washington, 1958.
- Frances P. Barlow** Instructor in Human Development and Family Relationships (1954)
B.S., University of Utah, 1933; M.Ed., Utah State University, 1938.
- J. Dean Barnett** Assistant Professor of Physics (1958)
B.A., University of Utah, 1954; Ph.D., University of Utah, 1959.

- Owen L. Barnett** Associate Professor of Educational Administration (1950)
B.S., M.S., Brigham Young University, 1923, 1927.
- Vesta Barnett** Instructor in Economics and Management of the Home (1956)
B.S., M.Ed., Brigham Young University, 1932, 1954.
- Vernon S. Barney** Assistant Professor of Health and Physical Education (1953)
B.S., M.S., Brigham Young University, 1948, 1956; Diploma in Physical Therapy, Children's Hospital Association School of Physical Therapy, University of California at Los Angeles, 1951.
- Ivan J. Barrett** Assistant Professor of Religion (1953)
B.S., Utah State University, 1938; M.S., Brigham Young University, 1947.
- Howard H. Barron** Assistant Professor of Religion (1957)
B.S., M.S., Utah State University, 1943, 1950; Ed.D., University of Utah, 1953.
- Davis Bartholomew** Professor of Electrical Engineering (1954)
B.S., University of Utah, 1928; M.S., University of Minnesota, 1940; P.E.E., University of Utah, 1948.
- J. LaVar Bateman** Associate Professor of Speech (1949)
B.A., Brigham Young University, 1941; M.S., Ph.D., University of Wisconsin, 1947, 1950.
- Edith Bartholomew Bauer** Associate Professor of Education (1945)
B.A., M.A., Brigham Young University, 1930, 1946; Ph.D., University of California (Berkeley), 1956.
- *Leland K. Baxter** Professor of Mechanical Engineering (1953)
B.S., University of New Mexico, 1948; M.S., Ph.D., Purdue University, 1952, 1953.
(On leave for post doctoral research.)
- D Elden Beck** Associate Professor of Zoology and Entomology (1938)
B.A., M.A., Brigham Young University, 1929, 1930; Ph.D., Iowa State College, 1933.
- Jay V. Beck** Professor of Bacteriology (1951)
B.A., M.A., Brigham Young University, 1933, 1936; Ph.D., University of California (Berkeley), 1940.
- Wayne M. Beebe** Assistant Professor of Mechanical Engineering (1958)
B.S., M.S., California Institute of Technology, 1951, 1952.
- Richard DerMont Bell** Instructor in Business Education and Office Management (1957)
B.S., M.S., Brigham Young University, 1955, 1956.
- B. West Belnap** Professor of Church Organization (1951)
B.S., Brigham Young University, 1946; M.A., Ed.D., Columbia University, 1950, 1951.
- Erma Bennett** Instructor in Instruction (1956)
B.S., Brigham Young University, 1936.
- Lucille Bennion** Instructor in Nursing (1958)
B.S., Brigham Young University, 1957.
- Marian Bennion** Associate Professor of Food and Nutrition (1952)
B.S., Utah State University, 1947; M.S., Teachers College, Columbia University, 1949; Ph.D., University of Wisconsin, 1956.
- Anthony I. Bentley, Sr.** Assistant Professor of Religion (1954)
B.A., Brigham Young University, 1930; M.A., University of Southern California, 1940.
- Joseph T. Bentley** Administrative Assistant; Associate Professor of Accounting
B.S., M.S., Brigham Young University, 1928, 1954; C.P.A., State of Utah, 1946.
- William E. Berrett** Vice-President; Professor of Religion
B.A., LL.B., University of Utah, 1924, 1933.
- Max J. Berryessa** Assistant Professor of Education (1948)
B.S., M.S., Brigham Young University, 1948, 1949; Ed.D. Stanford University, 1959.

- Constance Bethers** Instructor in Nursing (1958)
B.S., University of Utah, 1954.
- Seth Bills** Instructor in Instruction (1957)
B.S., Utah State University, 1946; M.S., Brigham Young University, 1949.
- Harold J. Bissell** Professor of Geology (1938)
B.S., Brigham Young University, 1934; M.S., Ph.D., University of Iowa, 1936, 1948.
- *Angus U. Blackham** Associate Professor of Chemistry (1952)
B.A., Brigham Young University, 1949; M.A., Ph.D., University of Cincinnati, 1950, 1952. (On leave for post doctoral research.)
- Mable Blanch** Special Instructor in English (1958)
B.A., Brigham Young University, 1950.
- Ruth S. Bloom** Assistant Professor of Nursing (1955)
Diploma, Brooklyn State Hospital, 1940; B.A., Brooklyn College, 1942; M.P.S., University of Colorado, 1947.
- T/Sgt Paul V. Boman** Instructor in Air Science (1958)
- *Winnifred Bowers** Instructor in Speech (1954)
B.S., M.A., University of Utah, 1946, 1950. (On leave for further graduate study at Columbia University.)
- *Charles H. Bradford** Instructor in Economics (1956)
B.S., M.S., University of Utah, 1952, 1953, (On leave as assistant to Senator Wallace Bennett in Washington, D.C.)
- Reed H. Bradford** Professor of Sociology (1946)
B.A., Brigham Young University, 1937; M.A., Louisiana State University, 1939; M.A., Ph.D., Harvard University, 1941, 1946.
- Merrill K. Bradshaw** Instructor in Music (1957)
B.A., M.A., Brigham Young University, 1954, 1955.
- Marion B. Brady** Instructor in English (1957)
B.A., M.A., Brigham Young University, 1950, 1951.
- Margaret E. Brasher** Instructor in Food and Nutrition (1958)
B.S., Brigham Young University, 1957.
- Nancy Iretta Briggs** Special Instructor in Speech (1958)
B.A., M.S., Brigham Young University, 1957, 1958.
- Willis H. Brimhall** Instructor in Geology (1956)
B.S., Brigham Young University, 1949; M.S., University of Arizona, 1951.
- Ralph A. Britsch** Associate Professor of English (1938)
B.A., M.A., Brigham Young University, 1933, 1951.
- H. Smith Broadbent** Professor of Chemistry (1946)
B.S., Brigham Young University, 1942; Ph.D., Iowa State College, 1946.
- *Billings Brown** Associate Professor of Chemical Engineering (1953)
B.S., M.S., Ph.D., University of Washington, 1951, 1951, 1953. (On leave for post doctoral research.)
- Jack Vernal Brown** Special Instructor in Languages (1958)
B.A., Brigham Young University, 1957.
- Robert S. Brownlee** Instructor in Music (1955)
B.Mus., Oberlin College, 1952; B.A., M.A., Brigham Young University, 1954, 1955.
- Loren C. Bryner** Professor of Chemistry (1935)
B.S., M.S., Brigham Young University, 1928, 1930; Ph.D., Iowa State College, 1934.
- Maurine F. Bryner** Instructor in Food and Nutrition (1957)
B.S., Brigham Young University, 1928.
- Kenneth C. Bullock** Professor of Geology (1943)
B.S., M.A., Brigham Young University, 1940, 1942; Ph.D., University of Wisconsin, 1949.

- Robert E. Bunker** Instructor in Physical Education;
Assistant Basketball Coach (1949)
B.S., Utah State University, 1937.
- M. Dallas Burnett** Instructor in Journalism (1958)
B.S., Brigham Young University, 1954; M.S., Northwestern University, 1958.
- Wesley Burnside** Instructor in Art (1958)
B.S., M.S., Brigham Young University, 1941, 1949.
- Percy E. Burrup** Professor of Educational Administration (1952)
B.S., M.S., Utah State University, 1932, 1941; Ed.D., Colorado State College of Education, 1951.
- *Jess R. Bushman** Assistant Professor of Geology (1955)
B.A., Brigham Young University, 1949; Ph.D., Princeton University, 1958. (On leave with Venezuelan government.)
- Eliot A. Butler** Assistant Professor of Chemistry (1956)
B.S., Ph.D., California Institute of Technology, 1952, 1955.
- Newbern I. Butt** Assistant Professor of Library and Research (1922)
B.S., Utah State University, 1915; M.S., Brigham Young University, 1939.
- Edwin J. Butterworth** Assistant Professor of Journalism (1949)
B.A., University of Utah, 1950; M.A., Brigham Young University, 1954.
- Glen H. Calder** Instructor in Engineering Science (1955)
B.S., M.S., Utah State University, 1952, 1953.
- JoAnn Calderwood** Instructor in Physical Education (1955)
B.S., Utah State University, 1953; M.S., State College of Washington, 1955.
- Gaylon L. Caldwell** Associate Professor of Political Science (1951)
B.A., Utah State University, 1947; M.A., University of Nebraska, 1948; Ph.D., Stanford University, 1952.
- *Sterling G. Callahan** Professor of Education (1953)
B.A., Brigham Young University, 1937; M.A., George Washington University, 1947; Ed.D., University of Virginia, 1953. (On leave for post doctoral research.)
- *Eugene E. Campbell** Professor of History (1956)
B.A., M.A., University of Utah, 1939, 1940; Ph.D., University of Southern California, 1952. (On leave for post doctoral research and study.)
- Jennie Campbell** Associate Professor of Education (1952)
B.S., Brigham Young University, 1928; M.A., Teachers College, Columbia University, 1937.
- Ray R. Canning** Associate Professor of Sociology (1947)
B.S., Utah State University, 1942; M.S., Brigham Young University, 1948; Ph.D., University of Utah, 1956.
- Clawson Y. Cannon, Jr.** Assistant Professor of Music (1949)
B.M., Eastman School of Music, University of Rochester, 1948; Diploma, Konservatorium Zurich, 1953; B.A., M.A., Brigham Young University, 1954, 1955.
- Clawson Y. Cannon, Sr.** Professor of Animal Husbandry (1956)
B.S., Utah State University, 1913; M.S., Ph.D., Iowa State College, 1924, 1927.
- John N. Cannon** Assistant Professor of Mechanical Engineering (1957)
B.S.M.E., M.S., University of Utah, 1952, 1955.
- Kenneth L. Cannon** Professor of Human Development and Family Relationships (1956)
B.S., Brigham Young University, 1935; M.S., Ph.D., Iowa State College, 1948, 1954.
- Wayne M. Carle** Instructor in Journalism (1956)
B.A., M.Ed., Brigham Young University, 1952, 1956.
- Ruth C. Carlson** Special Instructor in Clothing and Textiles (1957)
B.S., Utah State University, 1954.

- L. Bernice Chapman** Associate Professor of Nursing;
Dean, College of Nursing (1954)
Diploma, Community Hospital, Grinnell, Iowa, 1930; B.S., University of Minnesota,
1935; M.A., Columbia University, 1952.
- A. Norton Chaston** Special Instructor in Electrical Engineering (1957)
B.S., University of Utah, 1955.
- Thomas E. Cheney** Associate Professor of English (1945)
B.S., Utah State University, 1930; M.A., University of Idaho, 1936.
- Dean C. Christensen** Associate Professor of Education (1957)
B.S., M.S., Utah State University, 1938, 1948; Ed.D., University of Oregon, 1957.
- Earl M. Christensen** Associate Professor of Botany (1949)
B.S., M.S., University of Utah, 1947, 1949; Ph.D., University of Wisconsin, 1954.
- Edward L. Christensen** Professor of Business
Education and Office Management (1953)
B.S., M.S., Ph.D., University of Utah, 1938, 1939, 1953.
- James J. Christensen** Assistant Professor of Chemical Engineering (1957)
B.S., M.S., University of Utah, 1953, 1956; Ph.D., Carnegie Institute of Technology,
1957.
- Lillian Christensen** Assistant Professor of Education (1958)
B.S., University of Utah, 1938; M.S., Brigham Young University, 1957; Ph.D., Western
Reserve University, 1958.
- Parley A. Christensen** Professor of English (1927)
B.S., Utah State University, 1914; M.A., Ph.D., Stanford University, 1925, 1927.
- *Ross T. Christensen** Assistant Professor of Archaeology (1952)
B.A., M.A., Brigham Young University, 1943, 1947; Ph.D., University of Arizona,
1956. (On leave for post doctoral research.)
- John R. Christiansen** Associate Professor of Sociology (1957)
B.S., M.S., Utah State University, 1949, 1952; Ph.D., University of Wisconsin, 1955.
- Lee Russon Chugg** Special Instructor in Bacteriology (1958)
B.S., Utah State University, 1958.
- Bruce B. Clark** Associate Professor of English (1950)
B.A., University of Utah, 1943; M.A., Brigham Young University, 1948; Ph.D., Uni-
versity of Utah, 1951.
- Harold Glen Clark** Professor of Education; Dean of Adult
Education and Extension Services (1946)
B.S., Brigham Young University, 1928; M.S., University of Southern California,
1934; Ed.D., George Washington University, 1942.
- Herald R. Clark** Professor of Finance and Banking (1913)
B.A., Brigham Young University, 1918; M.B.A., University of Washington, 1924.
- J. Reuben Clark, III** Assistant Professor of Modern Languages (1941)
B.A., University of Utah, 1934.
- James R. Clark** Assistant Professor of Religion (1938)
B.A., M.A., Brigham Young University, 1936, 1944; Ed.D., Utah State University,
1958.
- Marden J. Clark** Assistant Professor of English (1949)
B.A., M.A., Brigham Young University, 1948, 1949; Ph.D., University of Washing-
ton, 1957.
- Monroe H. Clark** Associate Professor of Philosophy of Education
and Guidance (1945)
B.A., Columbia University, 1923; M.A., Brigham Young University, 1927.
- *Selby G. Clark** Associate Professor of Personnel and Guidance (1953)
B.S., University of Utah, 1948; M.A., University of Minnesota, 1949; Ed.D., State
College of Washington, 1953. (On leave for post doctoral research and study.)
- A. John Clarke** Professor of Educational Administration (1938)
B.S., M.S., Brigham Young University, 1938, 1942; Ed.D., Colorado University, 1950.

- Morris M. Clinger** Assistant Professor of Speech (1936)
B.A., M.A., Brigham Young University, 1932, 1946.
- Lane A. Compton** Assistant Professor of Physical Science
Education (1953)
B.S., M.S., Ed.D., University of Utah, 1943, 1951, 1955.
- Ivan L. Corbridge** Associate Professor of Economics (1952)
B.A., Utah State University, 1946; M.S., University of Chicago, 1948; Ph.D., Washington State College, 1952.
- Stephen R. Covey** Instructor in Marketing (1957)
B.S., University of Utah, 1953; M.B.A., Harvard Graduate School of Business Administration, 1957.
- *Soren F. Cox** Instructor in English (1955)
B.A., M.A., Brigham Young University, 1952, 1956. (On leave for further graduate study.)
- Marshall R. Craig** Assistant Professor of English (1953)
B.S., Brigham Young University, 1941; M.A., Columbia University, 1947.
- Lars G. Crandall** Assistant Professor of Business Education
and Office Management (1944)
B.S., M.S., Brigham Young University, 1944, 1945.
- Earl C. Crockett** Vice-President; Professor of Economics
B.S., University of Utah, 1927; Ph.D., University of California, 1931.
- Evan M. Croft** Associate Professor of Business Education
and Office Management (1936)
B.S., Brigham Young University, 1929; M.S., University of Southern California, 1940.
- David M. Crowton** Instructor in Physical Education; Assistant Coach (1937)
B.S., Brigham Young University, 1938.
- Robert M. Cundick** Assistant Professor of Music (1957)
B.F.A., M.F.A., Ph.D., University of Utah, 1949, 1950, 1955.
- Brandt B. Curtis** Instructor in Music (1955)
B.A., Brigham Young University, 1953; M.Mus., Indiana University, 1955.
- Delva Daines** Associate Professor of Education (1955)
B.S., M.S., Utah State University, 1940, 1947; Ed.D., State College of Washington, 1956.
- Alexander B. Darais** Instructor in Art (1954)
B.S., Brigham Young University, 1948; M.F.A., Claremont Graduate School, 1952.
- *J. Kenneth Davies** Assistant Professor of Economics (1953)
B.S., Marquette University, 1948; M.S., Brigham Young University, 1950. (On leave for post doctoral research and study.)
- John R. Davis** Assistant Professor of Business Management (1958)
B.S., Brigham Young University, 1941; M.B.A., Stanford Graduate School of Business, 1951.
- Daniel Decker** Assistant Professor of Physics (1958)
B.S., M.S., Brigham Young University, 1953, 1955; Ph.D., University of Illinois, 1958.
- Gerrit de Jong, Jr.** Professor of Modern Languages; Dean
of the College of Fine Arts (1925)
B.A., M.A., University of Utah, 1920, 1925; Ph.D., Stanford University, 1934.
- Stanford D. DeMille** Instructor in Business Education and Office
Management (1957)
B.S., Brigham Young University, 1950.
- Fred W. Dixon** Assistant Professor of Physical Education;
Tennis and Golf Coach (1928)
B.S., M.S., Brigham Young University, 1926, 1939.
- Owen G. Dixon** Instructor in Physical Education;
Assistant Football Coach (1947)
B.S., Brigham Young University, 1946.

- Mignon Domgaard** Instructor in Clothing and Textiles (1954)
B.S., Utah State University, 1943; M. of H.E., Oregon State College, 1954.
- David M. Donaldson** Associate Professor of Bacteriology (1955)
B.S., M.S., Ph.D., University of Utah, 1950, 1952, 1954.
- G. Byron Done** Professor of Religion (1956)
B.A., University of Utah, 1928; M.A., Ph.D., University of Southern California, 1937, 1939.
- Lester N. Downing** Associate Professor of Personnel and Guidance (1954)
B.S., M.S., Utah State University, 1947, 1949; Ed.D., Colorado State College of Education, 1951.
- Roy W. Doxey** Assistant Professor of Religion (1948)
B.A., M.A., George Washington University, 1938, 1940.
- Willard B. Doxey** Instructor in Economics (1956)
B.S., M.S., University of Utah, 1937, 1947; Ph.D., University of California (Berkeley), 1956.
- Henry W. Drewes** Instructor in Psychology (1957)
B.S., M.A., Utah State University, 1954, 1954; Ph.D., Cornell University, 1957.
- *J. Duane Dudley** Assistant Professor of Physics (1956)
B.S., Brigham Young University, 1952; M.A., Rice Institute, 1953. (On leave for research work.)
- Claude Duerden** Assistant Professor of Health Education (1958)
B.S., University of Utah, 1950; M.P.H., University of California, Berkeley, 1954.
- Keith E. Duke** Assistant Professor of Geography (1956)
B.A., University of California at Los Angeles, 1947; Docteur de l'Univ., Université de Bordeaux, France, 1950.
- Captain Gerald J. Dye** Assistant Professor of Air Science (1957)
B.S., Utah State University, 1949; M.Ed., Miami University, Oxford, Ohio, 1954.
- William G. Dyer** Associate Professor of Sociology (1955)
B.A., M.A., Brigham Young University, 1950, 1952; Ph.D., University of Wisconsin, 1955.
- Don L. Earl** Associate Professor of Music (1946)
B.A., M.A., Brigham Young University, 1940, 1947; Ph.D., Indiana University, 1952.
- E. John Eastmond** Professor of Physics (1951)
B.A., Brigham Young University, 1937; Ph.D., University of California (Berkeley) 1943.
- Jefferson N. Eastmond** Associate Professor of Educational Administration (1956)
B.S., M.S., Brigham Young University, 1947, 1948; Ed.D., Teachers College, Columbia University, 1950.
- *Blaine E. Edlefsen** Instructor in Music (1953)
B.A., Brigham Young University, 1952; M.Mus., Eastern School of Music, University of Rochester, 1953. (On leave for further graduate study at Eastmond School of Music.)
- Robert L. Egbert** Professor of Educational Psychology (1955)
B.S., M.S., Utah State University, 1947, 1948; Ph.D., Cornell University, 1949.
- J. Orval Ellsworth** Professor of Religion (1954)
B.S., Utah State University, 1917; M.S., Ph.D., Cornell University, 1924, 1926.
- Richard Grant Ellsworth** Instructor in English (1958)
B.A., M.A., Brigham Young University, 1951, 1952; Ph.D., University of Maryland, 1958.
- LaMar T. Empey** Associate Professor of Sociology (1955)
B.S., M.S., Brigham Young University, 1951, 1952; Ph.D., State College of Washington, 1955.
- Ross S. Esplin** Instructor in English (1953)
B.A., M.A., Brigham Young University, 1947, 1949.

- David L. Evans** Instructor in English (1954)
B.A., Idaho State College, 1948; M.A., University of Utah, 1953.
- *Dean B. Farnsworth** Associate Professor of English (1953)
B.A., M.A., University of Utah, 1946, 1947; Ph.D., University of California (Berkeley), 1950. (On leave for post doctoral work.)
- Raymond B. Farnsworth** Professor of Agronomy (1946)
B.S., Brigham Young University, 1937; M.S., Massachusetts State College, 1938; Ph.D., Ohio State University, 1941.
- M. Charles Faux** Instructor in Industrial Management (1957)
B.S., University of Utah, 1952; M.B.A., Harvard Graduate School of Business Administration, 1954.
- Lawrence Fearnley** Assistant Professor of Mathematics (1957)
B.S., London University, 1953; Ph.D., University of Utah, 1957.
- Paul E. Felt** Assistant Professor of Religion; Coordinator of Student Organizations (1957)
B.A., Brigham Young University, 1942; M.S., University of Utah, 1954.
- R. Kent Fielding** Assistant Professor of History (1952)
B.S., M.S., Brigham Young University, 1950, 1952; Ph.D., Indiana University, 1957.
- D. Allen Firmage** Associate Professor of Engineering (1955)
B.S.C.E., University of Utah, 1940; M.S., Massachusetts Institute of Technology, 1941.
- Albert L. Fisher** Assistant Professor of Geography (1954)
B.S., University of Utah, 1951; M.A., Ph.D., Johns Hopkins University, 1952, 1954.
- Chad J. Flake** Instructor in Library Science; Special Collections Librarian (1953)
B.A., Brigham Young University, 1953; M.A., University of Denver, 1955.
- Royce P. Flandro** Assistant Professor of Education (1953)
B.S., M.S., University of Utah, 1948, 1950; Ed.D., University of Indiana, 1957.
- Harvey Fletcher** Professor of Physics (1952)
B.S., Brigham Young University, 1907; Ph.D., Chicago University, 1911; hon.Sc.D., Columbia University, 1935; hon.Sc.D., Kenyon College, 1942; hon.Sc.D., Stevens Institute of Technology, 1942; hon.Sc.D., Case School of Applied Sciences, 1942; hon.Sc.D., University of Utah, 1944; hon.Sc.D., Brigham Young University, 1954.
- Harvey J. Fletcher** Associate Professor of Mathematics (1953)
B.S., Massachusetts Institute of Technology, 1944; M.S., California Institute of Technology, 1948; Ph.D., University of Utah, 1954.
- Dean K. Fuhrman** Professor of Engineering (1954)
B.S., M.S., Utah State University, 1941, 1950; Ph.D., University of Wisconsin, 1952.
- *Glen S. Gagon** Instructor in Education (1956)
B.S., M.Ed., Brigham Young University, 1951, 1956. (On leave for further graduate work at Colorado State University.)
- LaVell C. Gamett** Assistant Professor of Industrial Arts (1946)
B.S., Brigham Young University, 1935; M.S., University of Oregon, 1951.
- B. Delworth Gardner** Assistant Professor of Economics (1959)
B.S., M.S., University of Wyoming, 1952, 1954.
- Charles N. Gardner** Instructor in Mechanical Engineering (1957)
B.S., University of California (Berkeley), 1943.
- Elizabeth L. Gardner** Instructor in Clothing and Textiles and in Housing and Design (1952)
B.S., Utah State University, 1948; M.S., University of California at Los Angeles, 1954.
- John H. Gardner** Professor of Physics (1949)
B.S., Utah State University, 1943; M.A., Ph.D., Harvard University, 1947, 1950.

- Crawford Gates** Associate Professor of Music (1948)
B.A., San Jose State College, 1944; M.A., Brigham Young University, 1948; Ph.D., Eastman School of Music, University of Rochester, 1954.
- Jean Patricia Gaty** Assistant Professor of Nursing (1957)
Diploma, Hudson City Hospital Training School for Nurses, Hudson, New York, 1944; B.S., Florida Southern College, 1950; M.A., New York University, 1957.
- David D. Geddes** Assistant Professor of Physical Education and Health (1952)
B.S., M.S., Brigham Young University, 1950, 1952.
- *O. Norman Geertsens** Assistant Professor of Physics (1941)
B.S., Brigham Young University, 1930; M.S., University of California at Los Angeles, 1951. (On leave for research work.)
- M. Carl Gibson** Instructor in Modern and Classical Languages (1949)
B.A., M.A., Brigham Young University, 1947, 1949.
- Lt. Colonel William J. Gibson** Professor of Air Science (1959)
B.S., Utah State University, 1948.
- Preston R. Gledhill** Associate Professor of Speech (1947)
Degré Supérieur, La Sorbonne, 1938; B.A., Brigham Young University, 1939; M.A., Louisiana State University, 1940; Ph.D., University of Wisconsin, 1951.
- J. Rex Goates** Professor of Chemistry (1947)
B.S., Brigham Young University, 1942; Ph.D., University of Wisconsin, 1947.
- Nan Osmond Grass** Instructor in English (1951)
B.A., Brigham Young University, 1930; M.A., Stanford University, 1954.
- Capt. Philip L. Grindstaff** Assistant Professor of Air Science (1955)
B.S., Brigham Young University, 1950.
- Lue S. Groesbeck** Instructor in Music (1957)
B.A., Brigham Young University, 1948.
- Stewart L. Grow** Professor of History and Political Science (1947)
B.S., M.S., Brigham Young University, 1935, 1948; Ph.D., University of Utah, 1954.
- Clark J. Gubler** Associate Professor of Chemistry (1958)
B.A., Brigham Young University, 1939; M.A., Utah State University, 1941; Ph.D., University of California, 1945.
- Donworth Gubler** Instructor in Modern Languages (1954)
B.A., M.A., Brigham Young University, 1948, 1949.
- *Norman Gulbrandsen** Assistant Professor of Music (1951)
B.S., University of Utah, 1942; M.M., Northwestern University, 1948. (On leave for further graduate study at Northwestern University.)
- Richard L. Gunn** Associate Professor of Art and Education (1948)
B.S., M.S., Brigham Young University, 1947, 1950; Ed.D., Stanford University, 1955.
- *Fred E. Guymon** Instructor in Business Education and Office Management (1955)
B.S., University of Utah, 1948; M.E., University of Cincinnati, 1951. (On leave for further graduate study.)
- LeRoy R. Hafen** Professor of History (1954)
B.A., Brigham Young University, 1916; M.A., University of Utah, 1919; Ph.D., University of California, 1924; Litt.D., University of Colorado, 1935.
- *William J. Hafen** Instructor in Physical Education; Director of Intramurals (1954)
B.S., Brigham Young University, 1950; M.A., State College of Washington, 1953. (On leave for further graduate study at Indiana University.)
- *Richard W. Hales** Associate Professor of Physics (1952)
B.S., Iowa State College, 1946; Ph.D., University of California, 1952. (On leave for post doctoral research.)
- Wayne B. Hales** Professor of Physics and Mathematics; Dean of General College (1930)
B.A., Brigham Young University, 1916; M.A., University of Utah, 1922; Ph.D., California Institute of Technology, 1926.

- S/Sgt. George M. Hall** Instructor in Air Science (1958)
- H. Tracy Hall** Professor of Chemistry; Director of the
Research Division (1955)
B.S., M.S., Ph.D., University of Utah, 1942, 1943, 1948.
- Merrill J. Hallam** Associate Professor of Agronomy; Acting Dean of
College of Biological and Agricultural Sciences (1952)
B.A., Brigham Young University, 1950; Ph.D., Iowa State College, 1952.
- John R. Halliday** Professor of Music (1936)
B.A., M.A., Brigham Young University, 1935, 1936; Ph.D., Eastman School of Music,
University of Rochester, 1941.
- Lawson D. Hamblin** Assistant Professor of Library Science;
Order Librarian (1948)
B.A., Brigham Young University, 1938; LL.B., Washington College of Law, 1948.
- M./Sgt. Morck O. Hancock** Instructor in Air Science (1957)
B.A., University of Philippines, 1956.
- George H. Hansen** Professor of Geology and Geography (1927)
B.S., Utah State University, 1918; M.S., Ph.D., George Washington University, 1925,
1927.
- Harold I. Hansen** Professor of Speech (1952)
B.S., Utah State University, 1937; M.A., Ph.D., State University of Iowa, 1940,
1949.
- *Ralph W. Hansen** Instructor in Library Science; Archivist (1953)
B.A., M.A., Brigham Young University, 1951, 1954. (On leave for further graduate
study at the University of Wisconsin.)
- Wilford Nels Hansen** Assistant Professor of Chemistry (1958)
B.S., Brigham Young University, 1950; Ph.D., Iowa State College, 1956.
- Kenneth R. Hardy** Assistant Professor of Psychology (1954)
B.A., M.A., University of Utah, 1948, 1949; Ph.D., University of Michigan, 1954.
- James M. Harris** Assistant Professor of Educational Psychology (1955)
B.S., M.S., Utah State University, 1952, 1953; Ph.D., Cornell University, 1955.
- John B. Harris** Instructor in English (1958)
B.A., M.A., Brigham Young University, 1955, 1956.
- Bertrand F. Harrison** Professor of Botany (1929)
B.S., M.S., Brigham Young University, 1930, 1931; Ph.D., University of Chicago,
1937.
- *Charles J. Hart** Professor of Recreation and of Physical and
Health Education; Assistant to the Dean of the College of
Recreation, Physical and Health Education and Athletics (1925)
B.S., Utah State University, 1922; M.A., Ed.D., New York University, 1932, 1945.
(On leave on Fulbright to Iran.)
- *Edward L. Hart** Associate Professor of English (1952)
B.S., University of Utah, 1939; M.A., University of Michigan, 1941; D. Phil., Oxford
University (England), 1950. (On leave for post doctoral research and study.)
- Milton F. Hartvigsen** Professor of Physical Education; Dean of the College of
Recreation, Physical and Health Education and Athletics (1956)
B.S., M.Ed., Utah State University, 1930, 1939; Ed.D., University of California at
Los Angeles, 1956.
- Floyd E. Haupt** Instructor in Mathematics (1954)
B.S., M.S., University of Arizona, 1947, 1948.
- C. Lynn Hayward** Professor of Zoology (1930)
B.S., M.S., Brigham Young University, 1927, 1931; Ph.D., University of Illinois,
1941.
- Alma Heaton** Assistant Professor of Physical Education and
Recreation (1953)
B.S., M.S., Utah State University, 1950, 1951.

- Israel C. Heaton** Professor of Recreation (1956)
B.S., M.S., Utah State University, 1940, 1941; Re.D., University of Indiana, 1955.
- Charles A. Henson** Special Instructor in Speech (1958)
B.S., M.S., Brigham Young University, 1957, 1958.
- Richard H. Henstrom** Instructor in Speech; Chairman, Off-Campus Instruction (1957)
B.F.A., M.F.A., University of Utah, 1949, 1953.
- Karl P. Herde, Jr.** Instructor in Business Education and Office Management (1957)
B.S., M.S., Brigham Young University, 1949, 1956.
- Armin J. Hill** Professor of Physics; Dean of the College of Physical and Engineering Sciences (1957)
B.S., M.S., Montana State College, 1932, 1938; M.S., Ph.D., California Institute of Technology, 1949, 1950.
- Max W. Hill** Assistant Professor of Physics (1958)
B.A., Brigham Young University, 1954; Ph.D., University of California, 1959.
- *Kenneth L. Hillam** Instructor in Mathematics (1957)
B.S., M.S., University of Utah, 1949, 1956. (On leave for further graduate study at the University of Colorado.)
- Lynn M. Hilton** Associate Professor of Education; Chairman, B.Y.U.-Salt Lake Adult Education Center (1953)
B.S., M.S., University of Utah, 1950; Ph.D., University of Chicago, 1952.
- Lehi F. Hintze** Associate Professor of Geology (1955)
B.A., University of Utah, 1941; M.A., Ph.D., Columbia University, 1949, 1951.
- Cynthia C. Hirst** Instructor in Physical Education (1948)
B.A., University of Utah, 1947; M.S., University of Washington, 1952.
- *Harry Hodson** Professor of Civil Engineering (1953)
B.Sc., B.E., University of Sydney, 1938, 1940. (On leave for research work.)
- Leona Holbrook** Professor of Physical Education (1937)
B.S., University of Utah, 1929; M.A., Ed.D., Columbia University, 1935, 1950.
- Keith H. Hoopes** Assistant Professor of Animal Husbandry (1957)
B.S., Utah State University, 1957; D.V.M., State College of Washington, 1956.
- A. Burt Horsley** Assistant Professor of Philosophy and Religion (1956)
B.A., M.A., Brigham Young University, 1945, 1954; Dd.P., Münster University, 1955; Ph.D., Westphalian Welhelms Universität, Münster, Germany, 1956.
- Frank Horton** Instructor in English (1955)
B.A., Brigham Young University, 1951; M.A., University of Southern California, 1957.
- William A. Hoskisson** Assistant Professor of Bacteriology (1957)
B.S., M.S., Utah State University, 1938, 1941; Ph.D., University of Illinois, 1944.
- Robert J. Howell** Associate Professor of Psychology (1952)
B.A., M.A., Ph.D., University of Utah, 1948, 1949, 1951.
- Gordon D. Hoyt** Assistant Professor of Physics (1954)
B.S., M.A., Ph.D., University of Michigan, 1939, 1941, 1950.
- Captain Sterling S. Huish** Assistant Professor of Air Science (1957)
B.S., Utah State University, 1951.
- DeVerl S. Humphreys** Instructor in Electrical Engineering (1957)
B.S., Brigham Young University, 1955; M.S., University of Utah, 1957.
- Jay B. Hunt** Assistant Professor of History and Political Science; Chairman of Travel Studies, Extension Services (1950)
B.A., M.A., Ph.D., University of Utah, 1947, 1948, 1950.
- Ethel Lee Horner** Instructor in Food and Nutrition (1953)
B.S., University of Utah, 1946.

- Patricia K. Hurren** Instructor in Economics (1958)
B.S., M.S., Utah State University, 1956, 1956.
- Darcus D. Hyde** Instructor in English (1957)
B.A., Brigham Young University, 1956.
- Paul V. Hyer** Instructor in History (1957)
B.A., Brigham Young University, 1951; M.A., University of California, 1953.
- Scott S. Hymas** Instructor in English (1958)
B.A., Brigham Young University, 1955; M.A., Western Reserve University, 1958.
- Reed M. Izatt** Assistant Professor of Chemistry (1956)
B.S., Utah State University, 1951; Ph.D., Pennsylvania State University, 1954.
- Briant S. Jacobs** Professor of English (1946)
B.A., Brigham Young University, 1939; Ph.D., State University of Iowa, 1944.
- Phyllis C. Jacobson** Instructor in Physical Education for Women (1957)
B.S., M.S., Utah State University, 1953, 1954.
- M. Wells Jakeman** Associate Professor of Archaeology (1946)
B.A., University of Utah, 1931; M.A., University of Southern California, 1932; Ph.D., University of California, 1938.
- Martha R. Jenny** Associate Professor of Nursing (1952)
Diploma, Presbyterian Hospital School of Nursing, Chicago, 1926; B.S., Teachers College, Columbia University, 1939; M.S., University of Wisconsin, 1946.
- De Lamar Jensen** Assistant Professor of History (1957)
B.A., Brigham Young University, 1952; M.A., Ph.D., Columbia University, 1953, 1957.
- *Mary B. Jensen** Instructor in Physical Education and Recreation (1953)
B.A., Park College of Missouri, 1939. (On leave for research and writing.)
- Vern H. Jensen** Assistant Professor of Personnel and Guidance (1949)
B.S., M.S., Brigham Young University, 1948, 1950; Ed.D., University of Colorado, 1957.
- Gloria D. Jenson** Instructor in Library Science (1954)
B.S., Brigham Young University, 1950; M.S., Columbia University, 1954.
- J. Lorin Jex** Assistant Professor of Speech (1949)
B.A., M.A., Brigham Young University, 1947, 1950.
- Franz M. Johansen** Instructor in Art (1956)
B.A., Brigham Young University, 1955.
- Eldred A. Johnson** Assistant Professor of Accounting (1955)
B.A., M.A., Brigham Young University, 1949, 1950; C.P.A., California, 1952.
- *Garth N. Jones** Assistant Professor of Political Science (1953)
B.S., Utah State University, 1947; M.S., Ph.D., University of Utah, 1948, 1954.
(On leave to accept position as public administration education officer, United States International Cooperative Administration in Indonesia.)
- Jens J. Jonsson** Professor of Electrical Engineering (1953)
B.S.G.E., B.S.E.E., University of Utah, 1944, 1946; M.S.E.E., Ph.D., Purdue University, 1947, 1951.
- Eleanor Jorgensen** Assistant Professor of Clothing and Textiles (1949)
B.S., Brigham Young University, 1946; M.S., Kansas State College, 1954.
- Edgar Karst** Assistant Professor of Mathematics (1958)
B.S., University of Gottingen, Germany, 1938; M.S., University of Breslau, Germany, 1942.
- Joseph J. Keeler** Assistant Professor of Music; University Organist (1935)
B.S., M.A., Brigham Young University, 1940, 1950.
- C. Rodney Kimball** Instructor in Physical Education and Health (1937)
B.S., Brigham Young University, 1955.

- Edwin R. Kimball** Professor of Physical Education (1935)
B.S., Brigham Young University, 1926; M.S., University of Southern California, 1935; Ed.D., University of Oregon, 1955.
- Alma W. King** Assistant Professor of Religion; Dean of Students' Staff (1956)
B.S., M.S., Brigham Young University, 1930, 1936.
- Hattie M. Knight** Assistant Professor of Library Science;
Chairman, Library Science (1941)
B.S., Brigham Young University, 1941; B.S., in L.S., University of Denver, 1943;
M.S., in L.S., George Peabody College for Teachers, 1951.
- Marion Kohler** Assistant Professor of Nursing (1954)
Diploma, Salt Lake General Hospital, 1943; B.S., Brigham Young University, 1951;
M.N., University of Washington, 1957.
- Mary A. Krider** Assistant Professor of Educational Psychology (1954)
B.A., University of Nebraska, 1927; Ed.M., University of Oklahoma, 1940; Ph.D.,
Wayne State University, 1958.
- Jean T. Kunz** Instructor in Human Development and Family
Relationships (1957)
B.S., University of Idaho, 1940; M.A., George Peabody College, 1956.
- A. Dean Larsen** Instructor in Library Science; Serials and
Documents Librarian (1956)
B.S., Brigham Young University, 1954.
- *Don H. Larsen** Associate Professor of Bacteriology (1952)
B.S., Brigham Young University, 1940; M.A., University of Nebraska, 1942; Ph.D.,
University of Utah, 1950. (On leave for post doctoral research and study.)
- Vernon W. Larsen** Assistant Professor of Sociology (1952)
B.A., M.A., Brigham Young University, 1949, 1950; Ph.D., Cornell University, 1957.
- Clinton F. Larson** Associate Professor of English (1947)
B.A., M.A., University of Utah, 1943, 1947; Ph.D., University of Denver, 1956.
- *Gustive O. Larson** Associate Professor of Church History and
Philosophy (1954)
B.A. M.A., University of Utah, 1920, 1926. (On leave for research work.)
- Harold R. Laycock** Assistant Professor of Music (1949)
B.A., M.A., Brigham Young University, 1937, 1947.
- Ralph G. Laycock** Assistant Professor of Music (1953)
B.A., Brigham Young University, 1941; M.S., Juilliard School of Music, N.Y.C., 1948.
- Robert L. Layton** Assistant Professor of Geography (1954)
B.S., M.S., University of Utah, 1951, 1952.
- Robert L. Leake** Instructor in Physical Education (1956)
B.S., M.S., Brigham Young University, 1955, 1957.
- Harold W. Lee** Professor of Modern Languages (1937)
B.A., M.A., Brigham Young University, 1938, 1940; Ph.D., Stanford University, 1946.
- Stella Dixon Lewis** Instructor in Economics and Management
of the Home (1956)
B.S., Brigham Young University, 1938.
- Wesley P. Lloyd** Professor of Personnel and Guidance;
Dean of Students (1935)
B.S., M.S., Brigham Young University, 1927, 1934; Ph.D., University of Chicago,
1937.
- Howard D. Lowe** Professor of Finance and Banking (1947)
B.S., M.A., Utah State University, 1945, 1948; C.P.A., Utah, 1949; D.B.A., Indiana
University, 1957.
- Daniel H. Ludlow** Associate Professor of Religion (1955)
B.S., Utah State University, 1946; M.S., Indiana University, 1953; Ed.D., Columbia
University, 1955.

- Ross "J" McArthur** Assistant Professor of Industrial Arts (1956)
B.S., M.S., Utah State University, 1949, 1953; Ed.D., University of Missouri, 1955.
- Cleo McCracken** Instructor in Personnel and Guidance (1954)
B.S., Utah State University, 1937; M.A., Syracuse University, 1951.
- Lyle H. McIlff** Assistant Professor of Accounting (1957)
B.S., Brigham Young University, 1948; M.B.A., University of Texas, 1951; C.P.A., Texas, 1953, Utah, 1954.
- John E. McKendrick** Assistant Professor of English (1953)
B.A., M.A., University of Utah, 1942, 1949.
- Lynn A. McKinlay** Special Instructor in Speech (1955)
Certificate, Post Graduate Certificate, Pasadena Community Playhouse, College of Theatre Arts, 1936, 1937.
- Max E. McKinnon** Instructor in Industrial Arts (1957)
B.S., M.S., Utah State University, 1949, 1954.
- Kent H. McKnight** Associate Professor of Botany (1947)
B.S., M.S., Brigham Young University, 1948, 1952; Ph.D., University of Michigan, 1955.
- Delbert H. McNamara** Associate Professor of Mathematics and Physics (1955)
B.S., Ph.D., University of California (Berkeley), 1947, 1950.
- Melvin P. Mabey** Assistant Professor of History and Political Science (1955)
B.S., M.A., Brigham Young University, 1947, 1953; D. Phil., Oxford University (England), 1955.
- Harold S. Madsen** Instructor in English (1957)
B.A., University of Utah, 1953.
- Truman G. Madsen** Assistant Professor of Philosophy and Religion (1957)
B.S., M.S., University of Utah, 1951, 1952; A.M., Ph.D., Harvard University, 1957, 1959.
- Milton Marshall** Professor of Physics (1919)
B.A., Brigham Young University, 1918; Ph.D., University of Chicago, 1924.
- Daniel L. Martino** Associate Professor of Music (1956)
B.S., M.A., University of Minnesota, 1938, 1945.
- Conan E. Mathews** Associate Professor of Art (1956)
B.A., College of Idaho, 1936; M.F.A., University of Utah, 1950.
- Merlin J. Mechem** Associate Professor of Speech (1954)
B.A., Brigham Young University, 1948; M.S., Utah State University, 1949; Ph.D., Ohio State University, 1954.
- Richard L. Meibos** Instructor in Chemistry (1955)
B.A., Brigham Young University, 1952.
- *J. Keith Melville** Assistant Professor of Political Science (1957)
B.A., University of Utah, 1947; M.A., University of California, 1949; Ph.D., University of Utah, 1956. (On leave for post doctoral research and study.)
- Evan J. Memmott** Instructor in Education; Acting Chairman,
Audio-Visual Center, Extension Services (1955)
B.S., M.S., Utah State University, 1950, 1952; M.S., Indiana University, 1953.
- Keith Hansen Meservy** Instructor in Religion (1958)
B.A., Brigham Young University, 1951; Ph.D., Johns Hopkins University, 1956.
- Seymour Mikkelsen** Instructor in Animal Husbandry (1956)
B.S., Brigham Young University, 1948.
- Frank G. Miles** Instructor in Education (1958)
B.A., Brigham Young University, 1954; M.S., Utah State University, 1958.
- Martin L. Miller** Assistant Professor of Physics and Mathematics (1942)
B.A., M.A., Brigham Young University, 1942, 1950.

- Marion Millett** Assistant Professor of Geography (1958)
B.A., University of Southern California, 1954; M.A., University of Colorado, 1956.
- Albert O. Mitchell** Professor of Speech and Dramatic Arts (1956)
B.S., M.S., University of Utah, 1933, 1935; Ph.D., University of Wisconsin, 1938.
- Hal D. Mitchell** Instructor in Physical Education (1959)
B.S., University of California (Los Angeles), 1953.
- Olive K. B. Mitchell** Instructor in English (1947)
B.A., University of Arizona, 1932; M.A., Brigham Young University, 1934.
- J. C. Moffitt** Professor of Educational Administration (1953)
B.S., M.S., Brigham Young University, 1926, 1929; Ph.D., University of Chicago, 1940.
- *J. Weldon Moffitt** Assistant Professor of Psychology (1953)
B.S., Brigham Young University, 1949; M.S., University of Utah, 1950; Ph.D., University of Illinois, 1952. (On leave for post doctoral research.)
- *Darrel J. Monson** Associate Professor of Electrical Engineering (1956)
B.S., University of Utah, 1943; M.S., University of California (Berkeley), 1952.
(On leave for further graduate study at the University of Utah.)
- *Samuel C. Monson** Associate Professor of English (1952)
B.S., Utah State University, 1941; M.A., Ph.D., Columbia University, 1948, 1953.
(On leave for study and travel.)
- Glen Moore** Assistant Professor of Botany (1958)
B.S., M.S., Brigham Young University, 1949, 1950; Ph.D., University of Chicago, 1953.
- Alonzo J. Morley** Professor of Speech (1928)
B.A., M.A., Brigham Young University, 1925, 1931; Ph.D., University of Iowa, 1935.
- Jeannette Morrell** Instructor in English (1956)
B.A., M.A., University of Utah, 1933, 1935.
- A. Reed Morrill** Professor of Educational Administration (1948)
B.S., M.S., Brigham Young University, 1928, 1937; Ed.D., University of Oregon, 1948.
- Lawrence Morris** Professor of Animal Husbandry (1952)
B.S.A., University of Arizona, 1925; M.S., Texas A. & M., 1928; Ph.D., Louisiana State University, 1938.
- Sadie O. Morris** Professor of Food and Nutrition (1957)
B.S., M.S., Utah State University, 1921, 1922; Ph.D., Columbia University, 1933.
- *J. Richard Murdock** Assistant Professor of Botany (1952)
B.S., M.S., Brigham Young University, 1949, 1951; Ph.D., State College of Washington, 1957. (On leave for post doctoral research.)
- William V. Nash** Instructor in Library Science; Science Librarian (1957)
B.A., Brigham Young University, 1950; M.S., University of Illinois, 1957.
- Glen T. Nelson** Professor of Economics (1954)
B.S., M.S., Utah State University, 1942, 1948; Ph.D., University of Illinois, 1950.
- K. LeRoy Nelson** Associate Professor of Chemistry (1956)
B.S., Utah State University, 1948; Ph.D., Purdue University, 1952.
- Hugh W. Nibley** Professor of History and Religion (1946)
B.A., University of California at Los Angeles, 1934; Ph.D., University of California, 1938.
- Henry J. Nicholes** Associate Professor of Health Education (1946)
B.A., Brigham Young University, 1935; M.S., Ph.D., University of Wisconsin, 1939, 1941.
- Joseph K. Nicholes** Professor of Chemistry (1933)
B.A., Brigham Young University, 1916; M.A., Stanford University, 1924.

- *Fred K. Nielsen** Instructor in Mathematics (1956)
B.A., M.A., Harvard University, 1954, 1955. (On leave for further graduate study at Harvard University.)
- Eve Nielson** Special Instructor in Library Science (1949)
B.S., Utah State University, 1945; M.S., University of Southern California, 1959.
- Howard C. Nielson** Associate Professor of Economics (1957)
B.S., University of Utah, 1947; M.S., University of Oregon, 1949; M.B.A., Ph.D., Stanford Graduate School of Business, 1956, 1957.
- Quentin R. Nordgren** Assistant Professor of Music (1955)
B.A., M.A., Brigham Young University, 1942, 1950; Ph.D., Indiana University, 1955.
- Keith R. Oakes** Professor of Educational Administration (1957)
B.S., M.S., Utah State University, 1940, 1948; Ed.D., University of Southern California, 1954.
- Clinton L. Oaks** Associate Professor of Marketing (1957)
B.A., Brigham Young University, 1948; M.B.A., Ph.D., Stanford Graduate School of Business, 1950, 1955.
- J. Lloyd Olpin** Assistant Professor of Mathematics (1955)
B.S., Brigham Young University, 1925; M.S., Colorado University, 1938.
- Ernest L. Olson** Assistant Professor of English (1953)
B.A., M.A., University of Utah, 1948, 1949.
- Mary M. Takaki Oniki** Instructor in Nursing (1957)
Diploma, Kuakini Hospital, Honolulu, Oahu, T.H., 1950; B.S., University of Utah, 1954.
- John E. Ord** Assistant Professor of Education (1957)
B.S., Utah State University, 1940; M.S., University of Utah, 1949; Ed.D., Stanford University, 1958.
- Scott G. Orrock** Instructor of Personnel and Guidance (1955)
B.A., M.A., Brigham Young University, 1952, 1953.
- Shirlene Oswald** Special Instructor in Physical Education (women) (1958)
B.S., Brigham Young University, 1958.
- Glen F. Ovard** Assistant Professor of Educational Philosophy (1958)
B.S., M.S., Brigham Young University, 1958; Ed.D., Stanford University, 1958.
- Joseph Owens** Curator in Geology (1957)
B.S., Brigham Young University, 1957.
- Kathryn B. Pardoe** Assistant Professor of Speech (1947)
B.A., Brigham Young University, 1934.
- Clyde A. Parker** Assistant Professor of Personnel and Guidance (1953)
B.S., M.S., Brigham Young University, 1952; Ph.D., University of Minnesota, 1957.
- John W. Payne** Assistant Professor of Sociology (1947)
B.A., M.A., Brigham Young University, 1936, 1948.
- Glenn Pearson** Assistant Professor of Religion (1951)
B.S., Utah State University, 1949; M.A., Brigham Young University, 1951.
- Dean A. Peterson** Associate Professor of Business Education
and Office Management; Director of the Summer School (1942)
B.S., Brigham Young University, 1938; M.S., University of Southern California, 1942.
- Hugh W. Peterson** Associate Professor of Chemistry (1927)
B.A., M.A., Brigham Young University, 1916, 1928; Ph.D., State University of Iowa, 1936.
- William Revell Phillips** Assistant Professor of Geology (1957)
B.S., M.S., Ph.D., University of Utah, 1950, 1951, 1954.
- Guy Pierce** Instructor in Industrial Arts (1953)
B.S., Brigham Young University, 1953; M.S., University of Minnesota, 1956.

- Richard D. Poll** Professor of History and Political Science (1948)
B.A., M.A., Texas Christian University, 1938, 1939; Ph.D., University of California, (Berkeley), 1948.
- J. Perry Polson** Assistant Professor of Business Education
and Office Management (1952)
B.S., M.S., University of Utah, 1947, 1952.
- Bill J. Pope** Associate Professor of Chemical Engineering (1958)
B.S., University of Utah, 1947; M.S., University of Washington, Seattle, 1948.
- Blaine M. Porter** Professor of Human Development and
Family Relationships (1955)
B.S., M.A., Brigham Young University, 1947, 1949; Ph.D., Cornell University, 1952.
- Margaret Schow Potter** Assistant Professor of Clothing and Textiles (1946)
B.S., Brigham Young University, 1939; M.S., Oregon State College, 1949.
- Norma Potter** Instructor in Nursing (1953)
Diploma, Latter-day Saints Hospital, Salt Lake City, 1931; B.S., University of Utah, 1950.
- Virginia B. Poulson** Assistant Professor of Homemaking Education (1950)
B.S., Brigham Young University, 1931; M.Ed., Colorado A. & M., 1955.
- Victor W. Purdy** Instructor in Library Science (1954)
B.S., Brigham Young University, 1952; M.S., Columbia University, 1955.
- Ellis T. Rasmussen** Instructor in Religion (1951)
B.S., M.A., Brigham Young University, 1942, 1951.
- Eleanor K. Ream** Instructor in Food and Nutrition (1956)
B.A., Brigham Young University, 1954.
- Jesse W. Reeder** Assistant Professor of History and
Political Science (1952)
B.S., M.S., Utah State University, 1934, 1937; Ph.D., Cornell University, 1952.
- Howard T. Reid** Professor of Personnel and Guidance;
Assistant Dean of Students (1953)
B.A., Brigham Young University, 1940; M.S., Ed.D., University of Southern California, 1947, 1949.
- Ernest F. Reimschiessel** Instructor in Horticulture and
Horticultural Specialties (1942)
B.A., M.S., Brigham Young University, 1940, 1951.
- *Leonard W. Rice** Professor of English; Dean of College of Humanities
and Social Sciences (1942)
B.A., Brigham Young University, 1941; M.A., Ph.D., University of Washington, 1943, 1950. (On leave for post doctoral work.)
- Naoma Rich** Assistant Professor of Library Science;
Coordinator of Technical Services (1937)
B.S., Brigham Young University, 1931; Certificate in Library Science, Riverside Library Service School, 1932.
- Owen S. Rich** Instructor in Radio Speech (1950)
B.S., Brigham Young University, 1950; M.A., University of Southern California, 1953.
- Russell R. Rich** Associate Professor of Religion (1953)
B.S., Utah State University, 1936; M.A., Brigham Young University, 1949; Ed.D., University of Wyoming, 1955.
- Grant S. Richards** Associate Professor of Animal Husbandry (1945)
B.S., M.S., Utah State University, 1940, 1942.
- *R. Neal Richards** Instructor in Journalism (1958)
B.S., M.S., Brigham Young University, 1951, 1955. (On leave for graduate work at Stanford University.)
- Jed J. Richardson** Instructor in Speech (1955)
B.S., M.S., Utah State University, 1950, 1955.

- Dean Rickenbach** Instructor in Economics (1957)
B.S., Brigham Young University, 1954; M.A., Stanford University, 1957.
- Eldin Ricks** Assistant Professor of Religion (1949)
B.S., Brigham Young University, 1941; M.A., University of Southern California, 1949.
- Chauncey C. Riddle** Assistant Professor of Religion and Philosophy (1952)
B.S., Brigham Young University, 1947; M.A., Columbia University, 1951; Ph.D., Columbia University, 1958.
- *J. Keith Rigby** Associate Professor of Geology (1953)
B.S., M.S., Brigham Young University, 1948, 1949; Ph.D., Columbia University, 1952.
(On leave for post doctoral research.)
- Robert E. Riggs** Assistant Professor of Political Science (1955)
B.A., M.A., University of Arizona, 1952, 1953; Ph.D., University of Illinois, 1955.
- Burton W. Robinson** Associate Professor of Clinical Psychology (1955)
B.S., M.S., Utah State University, 1951; Ph.D., Purdue University, 1954.
- Carol Jean Robinson** Instructor in Economics and Management of Home (1958)
B.S., Utah State University, 1956; M.S., Iowa State University, 1958.
- Donald W. Robinson** Associate Professor of Mathematics (1956)
B.S., M.A., University of Utah, 1948, 1952; Ph.D., Case Institute of Technology, 1956.
- Clarence F. Robison** Assistant Professor of Physical and Health
Education; Head Track Coach (1948)
B.S., Brigham Young University, 1949; M.S., University of Michigan, 1954.
- Lewis M. Rogers** Assistant Professor of Religion (1955)
B.S., Utah State University, 1943; M.A., Ph.D., University of Southern California, 1952, 1956.
- R. Max Rogers** Professor of Modern Languages (1945)
B.A., M.A., Brigham Young University, 1940, 1942; Ph.D., Stanford University, 1951.
- Carl W. Rollins** Instructor in Physical Education (1959)
B.S., M.S., University of Wyoming, 1949, 1950.
- Ralph L. Rollins** Associate Professor of Civil Engineering (1956)
B.S., M.S., Utah State University, 1941, 1949; Ph.D., Iowa State College, 1954.
- Antone K. Romney** Professor of Educational Psychology; Assistant
Dean of the College of Education (1945)
B.S., M.S., Brigham Young University, 1933, 1934; Ed.D., Stanford University, 1947.
- Diane Russon** Instructor in Physical Education (women) (1958)
B.A., University of Utah, 1956; M.S., University of Wisconsin, 1957.
- Richard D. Sagers** Assistant Professor of Bacteriology (1958)
B.S., M.S., Brigham Young University, 1954, 1955; Ph.D., University of Illinois, 1958.
- Clyde D. Sandgren** General Counsel; Professor of Business Law
B.S., Brigham Young University, 1937; LL.B., St. John's University, 1939.
- Lawrence W. Sardoní** Associate Professor of Music (1945)
B.A., M.A., Brigham Young University, 1935, 1946.
- Ruth P. Schindler** Assistant Professor of Nursing (1957)
B.A., Whittier College, 1927; Diploma, San Bernardino Valley College of Nursing, 1937; M.A., Columbia University, 1957.
- Sherman B. Sheffield** Instructor in History; Chairman, On-Campus
Adult Education (1957)
B.S., Brigham Young University, 1952; M.S., University of Southern California, 1954.
- Morris A. Shirts** Assistant Professor of Education (1952)
B.A., M.A., Brigham Young University, 1947, 1950; Ed.D., Indiana University, 1952.
- R. Phil Shumway** Assistant Professor of Animal Husbandry (1949)
B.S., Utah State University, 1947; M.S., University of Minnesota, 1949; Ph.D., Utah State University, 1959.

- Elbert R. Simmons** Instructor in Zoology and Entomology (1956)
B.S., Utah State University, 1941; M.A., State University of Iowa, 1943.
- John M. Simonsen** Associate Professor of Mechanical Engineering (1954)
B.S.M.E., University of Utah, 1950; M.S.M.E., Ph.D., Purdue University, 1952, 1955.
- Karl M. Skousen** Instructor in Accounting (1958)
B.S., M.S., Brigham Young University, 1944, 1957; C.P.A., Utah, 1957.
- *Arthur D. Slater** Assistant Professor of Personnel and Guidance (1956)
B.S., Brigham Young University, 1948; M.S.W., Tulane University, 1950. (On leave for further graduate study at Western Reserve University.)
- *Lyman F. Smart** Assistant Professor of English (1953)
B.A., Idaho State College, 1950; M.A., University of New Mexico, 1952. (On leave for further graduate study at the University of New Mexico.)
- Dorothy Smiley** Instructor in Nursing (1957)
Diploma, Broadlawn Hospital, Des Moines, Iowa, 1953; B.S., State University of Iowa, 1957.
- Carol T. Smith** Special Instructor in Library Science;
Life Sciences Librarian (1949)
B.A., Brigham Young University, 1940.
- Grant B. Smith** Special Instructor in Psychology (1958)
B.Ed., University of Alberta, 1948; M.S., Brigham Young University, 1958.
- Jay M. Smith, Jr.** Instructor in Accounting (1957)
B.S., Brigham Young University, 1953; C.P.A., 1953.
- Oliver R. Smith** Professor of Journalism (1938)
B.A., Brigham Young University, 1938; Ph.D., State University of Iowa, 1951.
- Richard L. Smith** Professor of Business Management (1947)
B.A., University of Utah, 1946; M.B.A., Northwestern University, 1947; C.P.A., Illinois, 1947; C.P.A., Utah, 1948; D.C.S., Harvard Graduate School of Business Administration, 1956; D.B.A., Indiana University, 1957.
- Robert J. Smith** Professor of Accounting (1949)
B.S., Brigham Young University, 1948; M.B.A., Northwestern University, 1949; C.P.A., Illinois, 1949; C.P.A., Utah, 1950; D.B.A., Indiana University, 1957.
- Wilford E. Smith** Associate Professor of Sociology (1948)
B.A., University of Utah, 1943; M.A., Brigham Young University, 1948; Ph.D., University of Washington, 1952.
- Rulon N. Smithson** Instructor in Modern Languages (1955)
B.A., M.A., Brigham Young University, 1954, 1955.
- Richard L. Snow** Assistant Professor of Chemistry (1957)
B.S., Ph.D., University of Utah, 1953, 1957.
- H. Wayne Soffe** Assistant Professor of Physical Education (1938)
B.S., M.S., Brigham Young University, 1938, 1941; D.P.E., Indiana University, 1955.
- John Leon Sorenson** Assistant Professor of Library Science (1958)
B.S., M.A., Brigham Young University, 1951, 1952; M.S., California Institute of Technology, 1952.
- Helen D. Sovine** Instructor in Food and Nutrition (1957)
B.S., Brigham Young University, 1953.
- Irene Osmond Spears** Associate Professor of English (1936)
B.A., Brigham Young University, 1929; M.A., Ph.D., Stanford University, 1934, 1942.
- George Albert Spencer** Instructor in Electrical Technology (1958)
B.S., University of Utah, 1939.
- Sidney B. Sperry** Professor of Old Testament Languages and
Literature (1932)
B.A., University of Utah, 1917; M.A., Ph.D., University of Chicago, 1926, 1931.
- Russell Stansfield** Assistant Professor of Business Education
and Office Management (1947)
B.S., M.S., Brigham Young University, 1940, 1949.

- *Homer G. Statham** Instructor in English (1955)
B.A., Mercer University, 1947; M.A., Brigham Young University, 1955. (On leave for further graduate study.)
- Captain David E. Stenquist** Assistant Professor of Air Science (1958)
- Floyd C. (Tally) Stevens** Instructor in Physical Education;
Head Football Coach (1956)
B.S., University of Utah, 1949.
- Helen T. Stevens** Instructor in Nursing (1957)
Diploma, Johns Hopkins Hospital, Baltimore, Maryland, 1947; B.S. University of Utah, 1957.
- Royal B. Stone** Associate Professor of Youth Leadership (1955)
B.S., University of Utah, 1926.
- Lorraine Storey** Instructor in Human Development and
Family Relationships (1956)
B.S., M.S., Utah State University, 1953, 1956.
- Dee Leon Storrs** Instructor in Library Science (1957)
B.S., Brigham Young University, 1953; M.S., University of Washington, 1957.
- *Robert E. Struthers** Instructor in Speech and Dramatic Arts (1953)
B.S., Utah State University, 1949; M.S., Brigham Young University, 1953. (On leave for further graduate study.)
- Howard C. Stutz** Assistant Professor of Botany (1953)
B.S., M.S., Brigham Young University, 1940, 1951; Ph.D., University of California (Berkeley), 1956.
- Albert D. Swensen** Professor of Chemistry (1947)
B.A., M.A., Brigham Young University, 1937, 1938; Ph.D., Louisiana State University, 1941.
- Beulah S. Swensen** Special Instructor in Business Education and
Office Management (1956)
B.S., Brigham Young University, 1932.
- Merlynn Swensen** Instructor in Library Science (1958)
B.A., B.L.S., University of California (Berkeley), 1952, 1953.
- Russel B. Swensen** Professor of History (1933)
B.A., Brigham Young University, 1926; M.A., Ph.D., University of Chicago, 1931, 1934.
- Joseph N. Symons** Professor of Sociology (1953)
B.S., M.S., Utah State University, 1927, 1932; Ph.D., University of Chicago, 1944.
- Orea B. Tanner** Associate Professor of English (1938)
B.A., Brigham Young University, 1932; M.A., Columbia University, 1953.
- Vasco M. Tanner** Professor of Zoology and Entomology (1925)
B.A., Brigham Young University, 1915; M.A., University of Utah, 1920; Ph.D., Stanford University, 1925.
- Wilmer W. Tanner** Associate Professor of Zoology
and Entomology (1949)
B.S., M.A., Brigham Young University, 1936, 1937; Ph.D., University of Kansas, 1949.
- Charles Taylor** Associate Professor of Psychology (1954)
B.Mus., A.B., Ph.D., Syracuse University, 1940, 1948, 1954.
- Ethelyn Peterson Taylor** Assistant Professor of Business Education
and Office Management (1946)
B.S., Brigham Young University, 1937; M.A., Stanford University, 1949.
- H. Darrel Taylor** Associate Professor of Modern Languages (1948)
B.A., M.A., University of Arizona, 1947, 1948; Ph.D., University of Illinois, 1956.
- Harvey L. Taylor** Vice-President; Professor of Educational Administration
B.S., University of Utah, 1921; M.A., Columbia University, 1925; LL.D., Arizona State College, 1956.

- Weldon J. Taylor** Professor of Marketing; Dean, College of Business (1937)
B.S., Brigham Young University, 1934; M.B.A., Harvard Graduate School of Business Administration, 1937; Ph.D., Graduate School of Business Administration, New York University, 1955.
- Elvis B. Terry** Instructor in Music (1957)
B.S., M.S., Brigham Young University, 1933, 1950.
- J. Kenneth Thatcher** Chairman of B.Y.U.-Ricks Adult Education Center, Extension Services; Instructor in Educational Administration (1956)
B.S., University of Utah, 1925; M.Ed., University of Idaho, 1936.
- Douglas H. Thayer** Instructor in English (1957)
B.A., Brigham Young University, 1955; M.A., Stanford University, 1959.
- Robert K. Thomas** Assistant Professor of English (1951)
B.A., Reed College, 1947; M.A., University of Oregon, 1949.
- Woodruff C. Thomson** Assistant Professor of English (1950)
B.A., M.A., University of Utah, 1938, 1949.
- Lucile Markham Thorne** Instructor in Library Science (1950)
B.A., M.Ed., Brigham Young University, 1929, 1956; M.S., University of Southern California, 1958.
- Frank M. Tippetts** Instructor in Civil Engineering (1958)
B.A., Brigham Young University, 1953.
- Lucile Layton Trost** Instructor in Clothing and Textiles (1956)
B.S., Brigham Young University, 1940; M.S., Utah State University, 1956.
- Jack B. Trunnell** Professor of Developmental Biology; Dean of the College of Family Living (1958)
B.A., Brigham Young University, 1942; M.D., University of Utah, 1945.
- Glen H. Turner** Assistant Professor of Art (1947)
B.S., M.A., Brigham Young University, 1940, 1948.
- Rodney Turner** Instructor in Religion (1956)
B.A., M.A., Brigham Young University, 1949, 1953.
- L. Elliott Tuttle** Assistant Professor of Geography (1936)
B.S., M.S., Brigham Young University, 1938, 1948.
- S. Lyman Tyler** Associate Professor of History; Director of Libraries (1952)
B.S., Ph.D., University of Utah, 1949, 1951.
- Clarence Tyndall** Assistant Professor of Education (1946)
B.S., Brigham Young University, 1941; M.A., Stanford University, 1952.
- Quentin E. Utley** Instructor in Education (1957)
B.S., Brigham Young University, 1940.
- Lee B. Valentine** Assistant Professor of Modern Languages (1938)
B.A., M.A., Brigham Young University, 1939, 1948; Ph.D., Stanford University, 1958.
- Jay L. Van Noy** Instructor in Physical Education; Head Baseball Coach (1957)
B.S., Utah State University, 1950.
- Leo P. Vernon** Associate Professor of Chemistry (1954)
B.A., Brigham Young University, 1948; Ph.D., Iowa State College, 1951.
- Josie S. Vincent** Special Instructor in Housing and Design (1957)
B.S., Utah State University, 1939.
- J. Homer Wakefield** Assistant Professor of Music (1949)
B.S., M.S., M.A., Brigham Young University, 1924, 1933, 1950.
- Lulu Wallace** Instructor in Physical Education (1956)
B.S., Utah State University, 1954.

- Mont M. Warner** Instructor in Geology (1958)
B.A., M.A., Brigham Young University, 1947, 1949.
- Max LeRoy Waters** Instructor in Business Education and
Office Management (1958)
B.A., Brigham Young University, 1958.
- Jean Anne Waterstradt** Instructor in English (1945)
B.A., Brigham Young University, 1945; M.A., University of Southern California,
1955.
- Arthur R. Watkins** Professor of Modern Languages (1952)
B.A., M.A., Brigham Young University, 1941, 1942; Ph.D., Stanford University, 1948
- Ray Watters** Assistant Professor of Health Education (1957)
B.S., M.S., Utah State University, 1948, 1950.
- Stanley H. Watts** Associate Professor of Physical Education;
Head Basketball Coach (1947)
B.S., Brigham Young University, 1938.
- Newell B. Weight** Assistant Professor of Music (1948)
B.A., M.A., Brigham Young University, 1938, 1946.
- Kurt Weininger** Instructor in Music (1956)
Music Diplomas, Academy of Music and Arts, Vienna, Austria, 1951, 1953.
- Dale H. West** Assistant Professor of English (1947)
B.A., Brigham Young University, 1940; M.A., University of Southern California,
1955.
- Harold F. Western** Instructor in Accounting (1958)
B.S., Brigham Young University, 1954; C.P.A., Utah, 1959.
- J. Morgan White** Instructor in Accounting (1953)
B.S., M.S., Brigham Young University, 1951, 1958; C.P.A., Utah, 1953.
- Harry E. Wickes** Instructor in Mathematics (1957)
B.S., M.Ed., Brigham Young University, 1950, 1954.
- Ray T. Wilcox** Assistant Professor of Education (1957)
B.S., M.Ed., Brigham Young University, 1951, 1954; Ed.D., University of California
(Berkeley), 1957.
- Doran F. Wilkes** Instructor in Civil Engineering (1958)
B.S., M.S., Utah State University, 1951, 1955.
- William L. Wilkes, Jr.** Instructor in Music (1957)
B.A., Brigham Young University, 1952; Ph.D., University of Southern California,
1956.
- Ernest J. Wilkins** Associate Professor of Modern Languages (1953)
B.A., Brigham Young University, 1947; M.A., Ph.D., Stanford University, 1949, 1954.
- Ernest L. Wilkinson** President of the University
B.A., Brigham Young University, 1921; LL.B., George Washington University, 1926;
S.J.D., Harvard University, 1927; LL.D., Brigham Young University, 1957.
- Frank R. Wilkinson** Assistant Professor of Psychology (1955)
B.A., University of Utah, 1948; M.A., University of Hawaii, 1950; Ph.D., Michigan
State University, 1955.
- S./Sgt. William K. Willden** Instructor in Air Science (1956)
- Milton George Wille** Assistant Professor of Mechanical Engineering (1958)
B.A., B.E.S., Brigham Young University, 1957; M.S., California Institute of Tech-
nology, 1958.
- Annette Wilson** Instructor in Nursing (1956)
Diploma, Thomas D. Dee Memorial Hospital, Ogden, Utah, 1951; B.S., University of
Utah, 1954.
- Arnold Wilson** Instructor in Civil Engineering (1957)
B.S., Brigham Young University, 1957.

- M. Lyman Wilson, Jr.** Assistant Professor of Industrial Management (1956)
B.A., Brigham Young University, 1954; M.B.A., Stanford Graduate School of Business, 1956.
- *Marguerite L. Wilson** Instructor in Educational Psychology (1956)
B.S., University of Utah, 1948; M.A., San Francisco State College, 1955. (On leave for further graduate study at George Peabody College for Teachers.)
- Warren B. Wilson** Associate Professor of Art and Education (1954)
B.S., Utah State University, 1943; M.F.A., State University of Iowa, 1949.
- John H. Wing** Assistant Professor of Chemistry (1931)
B.S., M.S., Brigham Young University, 1926, 1934.
- Alan R. Witbeck** Instructor in Physical Education (1955)
B.S., M.S., Brigham Young University, 1952, 1954.
- *Glena D. Wood** Assistant Professor of English (1952)
B.A., Brigham Young University, 1936; M.A., Ph.D., University of Kentucky, 1949, 1958. (On leave for post doctoral research and study.)
- Stephen L. Wood** Assistant Professor of Zoology and Entomology (1956)
B.S., M.S., Utah State University, 1946, 1948; Ph.D., University of Kansas, 1953.
- Lael J. Woodbury** Associate Professor of Speech (1954)
B.S., Utah State University, 1952; M.A., Brigham Young University, 1953; Ph.D., University of Illinois, 1954.
- Asahel D. Woodruff** Professor of Educational Psychology; Dean of
the College of Education (1949)
B.S., M.S., Brigham Young University, 1936, 1937; Ph.D., University of Chicago, 1941.
- Ralph Woodward** Assistant Professor of Music (1955)
University of Idaho, 1940; M.M., Cincinnati Conservatory of Music, 1948.
- Golden L. Woolf** Professor of Educational Administration (1934)
B.A., M.A., Brigham Young University, 1934, 1936; Ed.D., University of California, 1940.
- David H. Yarn, Jr.** Associate Professor of Theology and Philosophy;
Dean of the College of Religious Instruction (1950)
B.A., Brigham Young University, 1946; M.A., Columbia University, 1949; Ed.D., Columbia University, 1958.
- Karl E. Young** Professor of English (1930)
B.A., M.A., Oxford University (England), 1930, 1934.

(Names of faculty members on leave are marked with asterisks (*) in the departmental faculty listings.)

SPECIAL INSTRUCTORS OR LECTURERS

General Authorities of the Church of Jesus Christ of Latter-day Saints

- Florence Beck**, B.A., Consultant Instructor in Family Living
- Archibald F. Bennett**, M.A., Special Instructor in Religion
- Jacob Bos**, Special Instructor in Music
- Rulon Brough**, Special Instructor in Machine Accounting
- Adine Bradley**, Special Instructor in Music
- Merrill Bushnell**, M.B.A., Special Instructor in Industrial Management
- Richard A. Call**, M.D., Special Instructor in Bacteriology
- J. H. Carlquist**, M.D., Special Instructor in Bacteriology
- Ina Lou Chenev**, B.A., Special Instructor in Music

Lathair H. Curtis, B.A., Special Instructor in Journalism
Glenn L. Enke, B.S., Special Instructor in Housing and Design
George W. Fitzroy, Special Instructor in Piano
David Freed, B.S., Special Instructor in Music
Carl Fuerstner, Special Instructor in Piano
Barclay Gardner, M.S., Special Instructor in Economics
Paul Harmon, M.S., Special Instructor in Marketing
Lucille N. Jensen, B.S., Special Instructor in Human Development and Family Relationships
Phil D. Jensen, B.S., C.L.U., Special Instructor in Insurance
Lee Knell, B.S., B. Arch., Special Instructor in Art
W. H. Le Cheminant, M.D., Special Instructor in Bacteriology
Theron C. Liddle, Lecturer in Journalism
Arminta Mathews, B.S., Special Instructor in Music
Craig McNeil, B.A., Special Instructor in English
Lorna Neilsen, B.A., Special Instructor in English
Elmer E. Nelson, Special Instructor in Piano
Joseph E. Nelson, B.S., L.L.B., Special Instructor in Business Law
Richard Nibley, B.S., Special Instructor in Music
Kenneth Pace, B.S., Special Instructor in Marketing
Ford Paulson, Special Instructor in Agricultural Economics
O. Preston Robinson, B.A., M.S., D.C.S., Lecturer in Journalism
William B. Smart, B.A., Lecturer in Journalism
Lynn Taylor, B.A., Special Instructor in Art and Housing and Design
Richard M. Taylor, B.S., L.L.B., Special Instructor in Business Law
Irene Thomson, B.S., Special Instructor in Food and Nutrition
Helen W. Wakefield, B.S., Consultant Instructor in Family Living
Kay Williams, M.B.A., Special Instructor in Economics
Margaret Woodward, B.A., Special Instructor in Music

EXTENSION SERVICES — SPECIAL INSTRUCTORS OR LECTURERS

Nicholas Van Alfen, B.A., M.A., Special Instructor in Religion
Leland E. Anderson, B.S., M.A., Special Instructor in Religion
Willard A. Aston, B.S., Special Instructor in Religion
Theron H. Atkinson, B.A., M.A., Special Instructor in Library Science
J. Edwin Baird, B.S., LL.B., Special Instructor in Religion
B. Harrison Barrus, B.S., M.Ed., Special Instructor in Religion
Beth H. Bastian, B.S., M.S., Special Instructor in Economics and Home Management
Hugh C. Bennion, B.S., M.S., Ed.D., Special Instructor in Educational Adm.
Lowell L. Bennion, B.A., Ph.D., Special Instructor in Religion
Ruth H. Biddulph, B.A., Special Instructor in English
James L. Bradley, B.S., M.S., Special Instructor in Religion

- Melvin R. Brooks, B.A., M.A., Special Instructor in Religion
 Claude J. Burtenshaw, B.S., M.S., Ph.D., Special Instructor in Political Science
 Lee R. Cain, B.S., M.S., Special Instructor in Education
 Elaine Cannon, B.S., Special Instructor in Family Living
 W. Henry Chace, Special Instructor in Genealogy
 Jay B. Christensen, B.S., M.S., Special Instructor in Religion
 Henry E. Christiansen, Special Instructor in Genealogy
 Pearson H. Corbett, B.S., M.S., Special Instructor in Religion
 H. Clyde Davis, B.S., M.S., Special Instructor in Religion
 J. Ramon Drake, B.S., M.S., Special Instructor in Horticulture
 Robert Van Drimmelen, B.S., M.S., Special Instructor in Educational Administration
- Burnett B. Ferguson, B.A., M.A., Special Instructor in Religion
 George H. Fudge, Special Instructor in Genealogy
 David E. Gardner, Special Instructor in Genealogy
 Rulon R. Garfield, B.S., M.A., Special Instructor in Political Science
 Montchesney Gottfredson, B.A., M.A., Special Instructor in Religion
 Stanley Gunn, B.S., M.S., Special Instructor in Religion
 Wayne C. Gunnell, B.S., M.S., Special Instructor in Religion
 Victor C. Hancock, B.S., M.A., Special Instructor in Languages
 Charles D. Harland, Special Instructor in Genealogy
 James R. Harris, B.A., M.A., Special Instructor in Religion
 H. Bartley Heiner, B.S., M.S., Special Instructor in Religion
 Jackson B. Howard, B.A., L.L.B., Special Instructor in Political Science
 E. Preston Hyatt, B.S., M.S., Special Instructor in Geology
 Carl Herbert Jacob, B.A., M.A., Special Instructor in Religion
 Charles W. Johnson, B.A., Special Instructor in Finance and Banking
 Andrew J. Jones, B.S., M.S., Special Instructor in Audio-Visual Education
 Raymond F. Jones, B.A., Special Instructor in Genealogy
 R. Lee Kenner, B.A., M.A., Special Instructor in Religion
 Alfred H. Kopp, B.A., M.A., Special Instructor in Religion
 Edward C. Larsen, B.S., M.S., Special Instructor in Social Science
 Odell Larson, B.A., Special Instructor in Audio-Visual Education
 T. Edgar Lyon, B.S., M.A., Special Instructor in Religion
 Rulon S. McCarrey, B.S., M.S., Special Instructor in Sociology
 Calvin D. McOmber, Jr., B.A., Special Instructor in Religion
 Fred K. Miller, B.S., Special Instructor in Education and Industrial Arts
 Marriner D. Morrell, L.L.B., Special Instructor in Education
 Norma Morrell, B.S., Special Instructor in Human Development and Family Relationships
- Carl Olsen, B.A., M.A., Special Instructor in Art
 J. Duffy Palmer, B.S., L.L.B. Law, Special Instructor in Law
 Berkley H. Parkinson, M.A., Special Instructor in Physical Education

Oliver H. Parson, B.S., M.A., Special Instructor in Art
Hugh James Phillips, B.A., M.A., Special Instructor in Religion
Albert A. Pieper, B.A., M.S., Special Instructor in English
Benjamin J. Rencher, B.S., Ph.D., Special Instructor in Agriculture
A. Lee Robertson, Special Instructor in Survival Training
Howard E. Salisbury, B.A., Special Instructor in English Lit. and Languages
Jay L. Slaughter, B.A., B.S., Special Instructor in Music
Frank Smith, Special Instructor in Genealogy
Floyd Stettler, B.S., M.S., Special Instructor in Human Development and Family Relationships
J. Grant Stevenson, B.A., M.A., Special Instructor in Genealogy
Grace Nixon Stewart, B.A., M.A., Special Instructor in Speech and Dramatic Arts
Ezra S. Stucki, B.S., M.S., Special Instructor in Educational Administration
George F. Swenson, B.S., M.S., Ph.D., Special Instructor in Speech and Dramatic Arts
Virginia M. Swenson, B.S., Special Instructor in Family Relations
Grant R. Thomas, B.S., M.S., Special Instructor in Marketing
Shirley Thomas, B.S., Special Instructor in Food and Nutrition
William O. Tolman, B.S., Special Instructor in Genealogy
Arthur D. Wengreen, B.A., M.A., Special Instructor in Religion
Victor J. Wheeler, Special Instructor in Genealogy
Herbert C. Wright, B.A., M.A., Special Instructor in Religion

THE STAFF OF THE LABORATORY SCHOOLS

Avard A. Rigby Director of the Laboratory Schools;
 Associate Professor of Secondary Education (1957)
 B.S., Brigham Young University, 1938; Ed.D., University of Utah, 1955.
Max J. Berryessa Assistant Director of Laboratory Schools for
 Operation; Assistant Professor of Instruction (1948)
 B.S., M.S., Brigham Young University, 1948, 1949; Ed.D., Stanford University, 1959.
John K. Crnkovic Assistant Director of the Laboratory Schools for
 Curriculum and Teaching; Assistant Professor
 of Instruction (1957)
 B.A., Willamette University, 1930; M.A., University of Michigan, 1940; Ed.D., Arizona State College (Tempe), 1956.

The Elementary School

Erma Bennett Third Grade and Elementary Methods (1956)
 B.S., Brigham Young University, 1936.
Jesse R. Brown Fifth Grade and Elementary Methods (1956)
 B.S., M.Ed., Brigham Young University, 1949, 1956.
D. June Carlisle Second Grade and Elementary Methods (1956)
 B.S., Brigham Young University, 1958.
Lillian A. Christensen Second Grade and Elementary Methods (1950)
 B.S., University of Utah, 1938; M.S., Brigham Young University, 1957.
Hazel Cook Clark Fourth Grade and Elementary Methods (1952)
 B.S., University of Utah, 1938; M.S., Brigham Young University, 1957.
Welsford H. Clark Sixth Grade and Elementary Methods (1956)
 B.S., Brigham Young University, 1956.

- Bertha Davidson** Fourth Grade and Elementary Methods (1950)
B.S., M.S., Brigham Young University, 1950, 1954.
- Henrietta A. Hogan** First Grade (1957)
B.S., Utah State University, 1952.
- Elva Killian Miller** Third Grade and Elementary Methods (1955)
B.S., Brigham Young University, 1947.
- Mima Rasband** First Grade and Elementary Methods (1952)
B.S., M.S., Brigham Young University, 1937, 1950.
- Nita Richins** Kindergarten and Elementary Methods (1958)
B.S., Brigham Young University, 1954.
- Sadie Rogers** Fifth Grade and Elementary Methods (1956)
B.S., M.S., University of Utah, 1941, 1953.
- Carma L. Sandberg** Librarian (1957)
B.A., Brigham Young University, 1932.
- Hazel Young** Elementary Methods (1955)
B.A., Brigham Young University, 1933.

The Secondary School

- Verl Allman** Biological Sciences (1950)
B.S., M.S., Brigham Young University, 1948, 1952.
- Wallace E. Allred** Mathematics (1956)
B.S., M.Ed., Brigham Young University, 1956, 1957.
- Frank H. Arnold** Physical Education and Mathematics (1958)
B.S., Idaho State College, 1956.
- Grant D. Bendixsen** Mathematics, Core-Curriculum (1954)
B.S., M.S., Brigham Young University, 1949, 1953.
- June E. Berry** Librarian (1948)
B.S., Brigham Young University, 1947; M.S., University of Utah, 1952.
- Melvin R. Brooks** Religion (1955)
B.A., M.A., University of Utah, 1944, 1955.
- Faye J. Buttle** Speech, Core-Curriculum (1951)
B.A., M.Ed., M.A., Brigham Young University, 1927, 1953, 1954.
- Julia A. Caine** History, Social Studies (1941)
B.S., Brigham Young University, 1925; M.A., Colorado State College of Education, 1950.
- Betty Jo Dunnell** Home Economics (1956)
B.S., Brigham Young University, 1956.
- Jed G. Gibson** Physical Education and Athletics (1958)
B.S., University of Utah, 1956.
- Max C. Golightly** Speech (1956)
B.A., Brigham Young University, 1950; M.S., Brigham Young University, 1959.
- Omar Hansen** Mathematics and Physical Sciences (1957)
B.S., Brigham Young University, 1947.
- Anna B. Hart** English (1939)
B.S., Utah State University, 1922; M.A., University of Southern California, 1933;
M.Ed., George Peabody College for Teachers, 1949.
- Ray W. Hellberg** Art and Publications (1957)
B.A., M.S., Brigham Young University, 1955, 1957.
- Ross C. Hilton** Industrial Arts (1957)
B.S., Utah State University, 1951.
- Don L. McConkie** Social Studies (1953)
B.S., M.S., Brigham Young University, 1927, 1942.

- Parke Madson** Commercial Subjects (1955)
B.S., Brigham Young University, 1951, M.B.A., Indiana University, 1954.
- Ward Magleby** Religion (1957)
B.S., M.S., Utah State University, 1941, 1945.
- James Mason** Instrumental Music (1957)
B.A., M.A., Brigham Young University, 1955, 1957.
- LeRoy E. Porter** Counselor (1957)
B.S., Brigham Young University, 1954.
- Juanita T. Rogers** Physical Education and Health (1958)
B.S., Brigham Young University, 1956.
- M. LeRoy Sparks** Commercial Subjects (1944)
B.S., Utah State University, 1928.
- Lowell D. Thomson** Mathematics and Physical Science (1958)
B.A., Humboldt State College, 1952; M.S., University of Utah, 1958.
- Fredrick N. Webb** Vocal Music (1948)
B.A., M.A., Brigham Young University, 1933, 1954.
- June G. Whiteford** English (1955)
B.A., Michigan State Normal College, 1942; Certificate in Library Science, Gonzaga University, 1947.

Objectives

... seek ye out of the best books words of wisdom:
seek learning even by study, and also by faith.

—Doctrine and Covenants, Sec. 88, v. 118

David O. McKay, President of the Church of Jesus Christ of Latter-day Saints, has stated that the following should be the objectives of a student at the Brigham Young University:

1. Become aware of one's own ignorance and gain humility in contemplating how infinite God's creations are.
2. Increase one's knowledge, selecting those facts and truths which will be most valuable and realizing that exact and definite knowledge is always of the greatest possible value and importance to every individual who has the moral courage to use it rightly.
3. Learn that acquisition of knowledge will result only from personal effort, not from superficial study or shirking.
4. Realize the responsibility one has, because of free agency, of individual choice. The opportunity for rising above the plane of animal existence is open to all who will choose it.
5. Come to a knowledge that the purpose of life is not mere existence or pleasure or fame or wealth, but the perfection of humanity through individual achievement under the guidance of God's inspiration.

It has been the aim of the university to encourage students to realize these objectives, objectives closely allied to, and derived from, the basic philosophy of Mormonism: man, the son of God, is a free agent with unlimited possibilities for eternal development under God's guidance; a never-ending search for truth and for an understanding of the truth should be among the activities of those who aspire to perfection.

Brigham Young University

Past and Present

History of the University

Founding and Philosophy. Brigham Young University was established pursuant to a deed of trust executed by Brigham Young, President of the Church of Jesus Christ of Latter-day Saints, on October 16, 1875. That deed expressly set forth that the "pupils shall be instructed in . . . such branches as are usually taught in an academy of learning," and also "in the Old and New Testaments, the Book of Mormon and the Book of Doctrine and Covenants."

A group of seven persons appointed by President Young comprised the first Board of Trustees. They were Abraham O. Smoot, President of Utah Stake of the Church, which embraced all of Utah County, William Bringham of Springville, Leonard E. Harrington of American Fork, and Wilson H. Dusenberry, Martha J. Coray, Myron Tanner and Harvey H. Cluff of Provo, all prominent members of Utah Stake.

At a meeting November 22, 1875, the Board of Trustees organized the academy. At that time the Timpanogos Branch of the University of Deseret had just been discontinued, and it was too late in the year to arrange a complete school year. Consequently the board decided to hold two preliminary terms of the Brigham Young Academy. Warren N. Dusenberry, who had been principal of the Timpanogos Branch, was selected to become principal of the academy. After conducting the first preliminary term, which ended April 15, 1876, he resigned to practice law.

Ten days later, President Brigham Young, acting for the Board of Trustees, requested Dr. Karl G. Maeser, a convert to the Church from Germany, to come to his office. "Brother Maeser," said the President, "I have another mission for you. We have been considering the establishment of a Church school, and are looking around for a man—a man to take charge of it. You are the man, Brother Maeser. We want you to go to Provo to organize and conduct an academy to be established in the name of the Church—a Church School."

A few days later, Dr. Maeser called at the office of President Young and said, "President Young, I am ready to go to Provo. What are my instructions?"

"Only this," replied the President. "I want you to remember that you ought not to teach even the alphabet or the multiplication tables without the spirit of God. That is all. God bless you. Goodbye."

Dr. Maeser accepted this all-embracing charge, believing that the ultimate good in education could be summed up in the words of the Master: "Be ye perfect, even as your Father in Heaven is perfect." In one of his memorable sermons, Dr. Maeser stated the real purpose of the school by saying, "Not by bread alone, neither for bread alone does man live. There are higher objectives yet to be attained, other truths to be learned, and greater work to be done." Years later, consistent with that philosophy, the school adopted as its motto this revelation of the Lord: "The Glory of God is Intelligence."*

*Doctrine and Covenants, Section 93.

Administration of Karl G. Maeser. Karl G. Maeser served as principal of the academy from April 24, 1876, to January 4, 1892, a period of 16 years.

He had received intensive training in the excellent German schools of his time. He was a graduate of the Dresden Gymnasium and of the normal schools of Friedrichstadt, Germany. At the time of his conversion to the Church, he was Vice-Director of the Budich Educational Institute at Dresden.

Neither Warren N. Dusenberry nor Dr. Karl G. Maeser had much academic assistance at the beginning of school. When Dr. Maeser began his teaching at Brigham Young Academy, he was principal and the sole teacher of the twenty-nine students, most of them from Utah County.

The old Lewis Building, which stood on the corner of Third West and Center Streets, was the first home of the Brigham Young Academy. This building was later described by Justice George Sutherland of the United States Supreme Court, one of the academy's first students, as being a "structure without beauty or grace or any other aesthetic feature calculated to invite a second look . . . It consisted of one large room and a stage—both so utterly bare and gloomy as to make inappropriate any form of entertainment except tragedy."

By 1882 this building was found to be inadequate for the needs of the school, and additional rooms were built from funds provided by A. O. Smoot, Harvey H. Cluff, Myron Tanner, and W. H. Dusenberry. However, this structure was entirely destroyed by fire January 27, 1884. Temporary quarters were obtained, and the school continued with the loss of only one day of school. During the summer of 1884 arrangements were made with Z.C.M.I. for the use of the upper floor and part of the lower floor of its warehouse on University Avenue.

Members of the Board of Trustees were appointed by Brigham Young until his death in 1877, when this responsibility fell upon his heirs.

The transition of the Brigham Young Academy into the university of the Church has been marked by periods of great financial distress. Brigham Young died before he had provided for the endowment of the institution. This left the school without any assured source of income.

In the early days of the school, when no funds for the budget could be found, the Board actually considered closing the Academy. It was then that Professor Maeser and his faculty showed their loyalty by teaching for anything they could get, including agricultural products, which were accepted from students in lieu of cash tuition.

President A. O. Smoot of Utah Stake was equally loyal. In the winter of 1887, to bolster up a shrinking enrollment, he asked each member in attendance at a stake priesthood meeting to pay the tuition of at least one student at the academy. On leaving before the close of the meeting, he told the priesthood assembled that they might name the sum he should pay and he would abide by the decision. Members of the academy faculty readily responded to the call. One faculty member, who was teaching his first year at a salary of twenty dollars per month, paid a quarter's tuition for one student.

On June 8, 1888, President Wilford Woodruff organized a General Board of Education of the Church, consisting of nine members. This board directed the activities of the school, but the power of appointment of the Board of Trustees still remained with the heirs of Brigham Young until July 18, 1896, when, by the adoption of the Articles of Incorporation for the University, the right of appointment was granted to the First Presidency of the Church through the consent of the heirs of Brigham Young. By this action, the Church assumed the indebtedness of the institution and accepted the responsibility of maintaining Brigham Young University.

On January 4, 1892, the school was moved to what is now known as the Education Building, the first structure built especially for the university. Much

of the \$75,000 it cost was made available through the personal credit of President A. O. Smoot, a member of the Board of Trustees at that time.

Dr. Maeser's administration will be remembered primarily because of his masterful teaching. His legacy to the Church school system consisted of three ideals: (1) the acquirement of intelligence by academic studies; (2) the development of character; and (3) a reverence for the revealed word of God, together with a living testimony of the divinity of the message of the Church which he represented. He often stated that "no infidel" would go out from his school, and it is doubtful whether any did. His sermons were classics which lived with his students throughout their lives. He was the great spiritual architect of the school.

Administration of Benjamin Cluff. Benjamin Cluff, a former student of Karl G. Maeser, served as president from January 4, 1892, to December 23, 1903. He was one of the first native Utahns to earn a college degree, having received it from the University of Michigan in 1890. He influenced many young men and women to go to larger universities in pursuit of higher learning. Some of them later became teachers at Brigham Young University.

His administration was effective in changing the school from one which was still largely a normal school, with a very small college department, to the university.

After 1892, President Cluff asked the Church authorities to provide another building to house the growing student body properly. As the Church was not prepared to furnish the money, Reed Smoot, chairman of the Executive Committee of the Board, took the initiative and secured a contribution of one thousand dollars each from Wilford Woodruff, George Quayle Cannon, Joseph Fielding Smith, Reed Smoot, Jesse Knight, Charles Edwin Loose, Alfred William McCune, Amanda Inez Knight, Stephen L. Chipman, and Jesse William Knight. The cost of the building exceeded ten thousand dollars, but Reed Smoot subscribed the additional amount to cover the expense. It was named College Building. Dedication was held in connection with commencement week in 1898.

The financial panic of 1893 further intensified the school's financial difficulties. Some of the real estate sold to clear part of the indebtedness had to be repossessed by the school, and \$30,000 was supplied by the Church to be applied on its debts. President A. O. Smoot underwrote large notes for the school to keep it operating. On his death, the trustee-in-trust of the Church, in the interest of the heirs of the estate, agreed to underwrite all notes of the Academy bearing President Smoot's endorsement.

President Cluff was instrumental in founding an alumni association in June of 1893. He gave encouragement to student organization and activity. Early in his administration two school papers were begun; athletic sports such as football, basketball, and track were encouraged; and the school colors, blue and white, were chosen. He established the first summer school and added new departments and laboratories.

In 1894 the title of the head of Brigham Young Academy was changed from "Principal" to "President," and in 1903 the school became Brigham Young University.

In 1900 President Cluff sponsored a South American expedition to engage in archaeological study of Book of Mormon sites. While he was in South America, Acting President George H. Brimhall asked the authorities for a Church normal training school building with a gymnasium on the upper floor. Jesse Knight, a member of the Board of Trustees, volunteered a contribution of \$15,000. The board promptly authorized the project. Other contributions were solicited with good results. The total cost of the Training School and Gymnasium Building was \$35,000. The dedication service was held February 17, 1902.

Administration of George H. Brimhall. On April 16, 1904, after having acted as President of the University while Benjamin Cluff was in South America, George H. Brimhall was appointed President of the Brigham Young University. Joseph B. Keeler was appointed his first counselor and Edwin S. Hinckley his second counselor.

Dr. Brimhall also was a former student of Dr. Karl G. Maeser. He was a dynamic speaker and a great molder of character. He continually stressed the fact that the primary purpose of the school was to make better Latter-day Saints.

The Missionary and Preparatory Building, later known as the Art Building and now as B.Y. High, was dedicated October 26, 1904. It cost \$13,000, of which amount \$9,000 was apportioned to four stakes: Utah, Alpine, Nebo and Wasatch.

In 1904, the students and faculty began negotiations for the purchase of seventeen acres of land known generally as Temple Hill. This land, purchased from Provo City about 1907 at a total cost of \$1,000, was the beginning of the upper campus. A survey of the land purchased showed that about one and one-half acres at the point of the hill was not included in the deed given by Provo City. The students and faculty members of the school voluntarily raised an additional \$1,000 to pay for this land.

This purchase provided a place for the Maeser Memorial Building, the cornerstone of which was laid on Founder's Day, 1909. It was ready for occupancy the fall term of 1911. The structure and furnishing cost \$130,000; the Knight family contributed \$65,000, and other members of the alumni some \$50,000. The remainder of the cost was met through the sale of Blue Bench Irrigation Company Bonds owned by the school.

The Women's Gymnasium was erected in 1913; the Mechanic Arts Building in 1919.

On December 21, 1914, the late Jesse Knight made an endowment to the university of one hundred thousand dollars in six per cent bonds. The interest payments on these bonds, together with the payments on bonds which have matured, have been placed at interest, and the cash credit of this account now represents approximately twice the amount of the original endowment.

During President Brimhall's administration graduate work was introduced and the first master's degrees were conferred. The school spirit was furthered by the organization of the students into a student body. Printing of the school yearbook, *The Banyan*, was begun, and a huge white "Y" was placed on the mountainside east of Provo.

Dr. Brimhall served until July 1, 1921, a period of 17 years.

Administration of Franklin S. Harris. Franklin S. Harris, a former student of the institution under President George H. Brimhall, was selected to succeed his former president. Dr. Harris had received his Ph.D. degree from Cornell University in 1911 and had served as an instructor in the Juarez Academy and Cornell University, and as professor of agronomy for the Utah Experiment Station, director of the School of Agricultural Engineering and Mechanical Arts, and director of the Utah Experiment Station at the Utah State Agricultural College. He had a world-wide reputation as a scientist.

Dr. Harris became president July 1, 1921, and served until June 30, 1945, a period of 24 years, the longest term of any president. During his administration, academic gains of great significance were made. The university was organized into five colleges: Applied Sciences, Arts and Sciences, Commerce, Education, and Fine Arts; and the Division of Religion and the Extension Division were established. The Graduate School was formally organized and a dean of the Graduate School appointed. The Heber J. Grant Library was completed in 1925, the Y Stadium in 1929, and during the last ten years of his administration a building program was begun which has been accelerating ever since.

It was President Harris who first envisioned the present expanded upper campus of the university and indeed who made it possible by his extensive purchasing of lands surrounding the original upper campus. It was also during his administration that all members of the Quorum of the Twelve became members of the Board of Trustees.

In 1935 two stories were added to the Mechanic Arts Building to provide additional classrooms and laboratories. The name was changed to George H. Brimhall Building. During the year 1935-36, a Stadium House on the west side of the football field was erected. In 1937-38, Allen Hall, a men's dormitory, and in 1938-39, Amanda Knight Hall, a women's dormitory, were constructed. These accommodate 90 and 130 students, respectively. The construction of both buildings was financed by borrowing from the Knight Endowment Fund. The Joseph Smith Building was begun in 1939 and completed in 1941 as a project of the Church Welfare program. During 1943 the university acquired the National Youth Administration Building on the east part of the campus for use of the Mechanic Arts Department. In 1944, because of the acute housing problem created by the building of the Geneva Steel plant, it was equipped to serve as a temporary dormitory for women.

Administration of Howard S. McDonald. Howard S. McDonald, the next president of the university, served from July 1, 1945, to October 30, 1949. Before being appointed to this position he had served as assistant superintendent of schools in San Francisco and later as superintendent of Salt Lake City schools.

Under his leadership the school experienced a major expansion. From 1946 to 1948 the temporary women's dormitory at the southeast end of the campus was remodeled into what is now known as Social Hall, containing a large dance floor and classrooms and offices used by the Music Department. During the same period Knight-Mangum Hall, a four-level structure adjoining the Social Hall on the west, was constructed. This building provides housing and feeding accommodations for 280 women. Because of the enlarged, post-war student body, student housing facilities were greatly increased. In cooperation with the Federal Works program, temporary housing, known as Wymount Village, was constructed in 1946-47 near the eastern edge of the campus for 200 married veterans and their wives and for 350 single veterans. Also under the Federal Works program of aid to education, temporary-type buildings were provided in 1946-47, consisting of the Physical Plant Building, Public Relations Building, North Building, Industrial Arts Building, Wymount Dining Hall, and University Press. In 1948 the Speech Department was moved to the Upper Campus and housed in temporary buildings. Here the Brigham Young University broadcasting station, KBYU, is located. A central heating plant costing \$200,000 was constructed in 1946.

Under President McDonald's direction the Eyring Science Center was begun and almost completed. Called by many educators the finest and most modern science building between the Mississippi and the Pacific Coast, it has four stories and contains approximately 150,000 square feet of floor space (practically the equivalent of the space in all of the other buildings of the university previously constructed). It is equipped with the finest facilities for study and research. Moreover, it is proof of the Church's sincere belief that there is nothing inconsistent between scientific truth and the teachings of the Gospel.

During his administration the planning and architectural drawings of buildings for the university were assigned to a University architect. The buildings and grounds were placed under the direction of a superintendent of buildings and grounds.

In the post-war era of expanding collegiate enrollments, the Brigham Young University, under his direction, expanded at a much faster rate than many other universities of the country. The faculty was increased to meet the new need. The Graduate School and the Student Counseling Service were both reorganized. As was true with his predecessors, he upheld and perpetuated the spiritual ideals of the university's academic life.

Administration of Christen Jensen. Dr. Christen Jensen acted as president of the Brigham Young University during 1939-40 (when Dr. Harris spent a year in Iran) and again from November 1, 1949, until the early part of 1951. His two periods of administration were characterized by an emphasis on scholarship and a meticulous observance of proper university standards. In an era of dynamic university problems, President Jensen directed an administration characterized by academic and administrative stability and sound judgment. Under his direction the Eyring Science Center was completed and dedicated on October 23, 1950; the plans for the new George Albert Smith Fieldhouse were approved, a drive for funds conducted, and its construction practically completed at a cost of over \$1,000,000. It provides, in addition to athletic and physical education facilities, offices for faculty members in the College of Recreation, Physical and Health Education, and Athletics. The Fieldhouse has a capacity of 10,650 persons.

Administration of Ernest L. Wilkinson. In 1950 Dr. Wilkinson was selected by the Board of Trustees as the new president. He began his period of service in February, 1951.

After graduating from Brigham Young University, he was graduated from George Washington University Law School, where he received his LL.B. degree. He then attended Harvard Law School, where he obtained the degree of Doctor of Juridical Science. After graduation he accepted an appointment to teach at the New Jersey Law School as Professor of Law. Soon thereafter he was invited to become an associate in the New York City law firm of which the Hon. Charles Evans Hughes, later Chief Justice of the Supreme Court of the United States, was the senior member. Later, organizing his own firm in Washington, D.C., Dr. Wilkinson achieved a national reputation as a lawyer, climaxed by obtaining judgments of \$32,000,000 for the Ute Indians, the largest judgments ever entered in the United States Court of Claims against the United States.

As a churchman, he has served as a bishop in the New York Stake and as a member of the stake presidency in the Washington Stake, and he has represented the Church on the National Commission for Army and Navy Chaplains, which approves chaplains appointed to the armed forces of the United States.

In 1951, a Reserve Officer Training Corps unit of the Air Force was activated at the Brigham Young University. The officers of this unit have been selected by the Secretary of the Air Force, with the approval of the President of the university. This unit is composed entirely of students regularly enrolled at Brigham Young University, and the same standards of conduct and living are required of them as of other students at the university. In accordance with an agreement with the federal government, a building was completed in October, 1952, which serves as a permanent rifle range for the A.F.R.O.T.C.

During his eight years of service, the university has experienced over 100 per cent increase in enrollment. In 1953, the university became the largest church-related institution of higher education in the United States. The faculty has witnessed an even larger proportionate increase in numbers, and the five colleges, one school, and two divisions previously comprising the university have been increased to eleven colleges, one school, and one division: Colleges of Biological and Agricultural Sciences; Business; Education; Family Living; Fine Arts; General; Humanities and Social Sciences; Nursing; Physical and Engineering Sciences; Recreation, Physical and Health Education and Athletics; Religious Instruction; Adult Education-Extension Services; and Graduate School.

Throughout his administration President Wilkinson has insisted upon ever-higher standards of scholarship. Under his direction the curriculum has undergone extensive revision to eliminate sub-university or duplicating courses, to strengthen existing courses, and to add courses needed in the expanding college program.

Among his most significant achievements is the organization on January 8, 1956, of the Brigham Young University Stake of the Church. The original twelve

wards have been increased to twenty-four. Spiritual benefits of this program to students have been incalculable. One specific advantage is the providing of a spiritual adviser to every 300 or 400 students, supplementing the regular university counseling service and offering a dual system of advising and counseling.

During the administration of President Wilkinson, the following new buildings and facilities, costing a total of nearly \$20,000,000 have been added to the facilities of the university:

The Herald R. Clark Student Service Center, begun in July 1952, was completed and made available for occupancy in March 1953. The financing of this building was primarily from income of the Students Supply over its years of operation. In the building are housed, in addition to the bookstore itself, the Adult Education and Extension Services—including the Audio-Visual Aids Department, the studentbody offices and organizations, student publications, and student services such as a placement bureau, a housing office, and a post office.

A large building project was started July 1952 with the construction of 16 buildings making up what is known as Heritage Halls. These buildings, completely modern in every respect, house 972 girls. Six girls live together in an apartment, preparing their own meals and doing their own housework. There are ten apartments to a building. Occupancy of the first of the buildings was begun in March 1953. The entire project was completed and fully occupied by the Fall Quarter of 1953.

Eight new buildings to house women students were added to the original 16 buildings of the Heritage Halls group. The total project was completed in the summer of 1956 and was fully occupied for the Fall Quarter of that year. The addition of these eight structures brings the total accommodations for this type of housing for women to 1,539.

The Engineering Building, constructed in 1953 and added to in 1954 and 1955, is an H-shaped building having four wings with laboratory space for the Civil, Mechanical, Electrical, and Chemical Engineering Departments. The central core of the building consists of offices serving the needs of the teaching staff. In 1953 a motion picture building with sound stage and related facilities was constructed. This building was equipped with the most modern animation and motion picture sound equipment for the production of educational moving pictures used throughout the Church.

The David O. McKay Building, a classroom building containing 104 offices and 31 classrooms and laboratories, was begun in March 1954 and completed in December of that same year. This building currently houses the College of Education, the Departments of English, Modern Languages, History, and Political Science, and sections of the Department of Religion. In the early spring of 1955, the Benjamin Cluff Plant Science Laboratory, with two connecting greenhouses, was completed. This structure is used by the Botany, Agronomy, Horticulture and Horticultural Specialties Departments. The Howard S. McDonald Student Health Center was opened for use of all students enrolled at the University in the fall of 1955. The lower floor of this structure is currently used as headquarters for the A.F.R.O.T.C.

Construction of the Joseph F. Smith Family Living Center began in the fall of 1955 and was completed in December 1956. Housed in this structure are the College of Family Living, the College of Nursing, a nursery school, and the Departments of Psychology and Sociology.

New housing facilities for married couples were added to the university housing projects in 1957. Wyview Village, a project consisting of 150 two- and three-bedroom homes for married students, was completed and fully occupied in the fall of 1957.

Another project completed during 1957 was the conversion of the university heating system to a \$2,000,000 high temperature water system.

In the fall of 1958 the residence halls for men known as Helaman Halls were completed. This project consists of five residence structures housing 1,170 men, and one central building with dining, recreation, and business office facilities. Two additional residence halls to become part of this project, which will bring the total number of accommodations up to 1,638, are under construction and will be ready for occupancy by the fall of 1959.

A building for the production of motion pictures was completed in the fall of 1958. It is located in the river bottom area a short distance from the main campus.

Many new projects have been authorized by the Board of Trustees to keep pace with the ever-expanding requirements of the university. These projects are in various stages of planning and development. Plans are proceeding rapidly on a new administration and general services building; a new library; a new physical education and recreation center, which among other facilities, is to have swimming pools and a gymnasium for women; a student commons building; an extension of the present George Albert Smith Fieldhouse; additional housing for single women and for married students; and new structures and facilities for the agricultural departments.

The University Today

Unification Plan. In every era of the Church its leadership has been sensitive to the need of continued intellectual and spiritual growth for its members. To meet this need, Church educational policies have constantly been adapted or modified to serve more fully the youth of the Church.

It was in such a spirit that all Church educational institutions were combined in July 1953 under one administrator, Ernest L. Wilkinson, who in turn is subject to a board of trustees for Brigham Young University and a board of education for the rest of the Church School System. Both boards, however, consist of the First Presidency and the Council of the Twelve. In announcing this unified plan the First Presidency said: "This great system of schools, institutes, and seminaries can become an ever more effective instrumentality in equipping the youth of the Church with solid foundations to meet the challenge of modern living." It added that Dr. Wilkinson "has surrounded himself with strong men to do a big job," and that "he will have at his service the strength not only of these men, but of all the members of the Brigham Young University faculty."

Since the approval of this plan during the summer of 1953 the administrative offices of Church education have been established at Brigham Young University. Thus Brigham Young University becomes the mother institution for Latter-day Saint education. From this campus a spirit of simplifying efficiency, economy, uniformity of standards and procedures, and even wider cooperation and harmony can now weld all phases of Church educational work into a stronger unit than ever before.

Ernest L. Wilkinson, administrator of the unification plan, continues as President of Brigham Young University. Assisting him are three vice presidents: William E. Berrett, Earl C. Crockett, and Harvey L. Taylor. Joseph T. Bentley is administrative assistant to President Wilkinson.

Under this new plan, established schools, seminaries, institutes, and colleges continue their functions. Changes will be brought about as need and the growth of the Church dictate. In addition, each institution shares its particular problems and philosophies with its sister institutions, as coordinated and interpreted by the administrator and his assistants.

Religious background of the faculty. Brigham Young University is the university for the Church of Jesus Christ of Latter-day Saints. One of its important aims is to develop its students spiritually as well as scholastically, to enable them to live more rounded and complete lives. Virtually all of the faculty of this institution, therefore, are active members and leaders of the Church with deep spiritual insight which motivates them in their contact with the students.

Some time ago a survey was made of the faculty which yielded the following information:

- 8 had served or were then serving as mission presidents.
- 55 had served or were then serving in general auxiliary boards of the Church.
- 41 had served or were then serving in stake presidencies.
- 148 had served or were then serving in ward bishoprics.
- 97 had served or were then serving in high councils.
- 342 had served in various other auxiliary organizations or priesthood capacities in the Church and 289 were then teaching in auxiliary organizations or priesthood quorums.
- 170 had served or were then on leave serving on foreign missions.

All of the officers of the Air Force Reserve Officer Training Corps were members of the Church. Three were then serving as members of bishoprics. Eight had been on missions and 16 were then actively engaged in administrative and teaching positions in Church auxiliary organizations.

Academic Growth and Recognition. The Brigham Young Academy as originally organized by Karl G. Maeser had three departments: the Academic, the Intermediate, and the Primary. Instruction was given mostly in the work of the lower grades, although a normal class was included in the Academic Department. Today the university offers a full university curriculum, and its credits are recognized and accepted to the same extent as those of other leading American colleges.

The Brigham Young University is affiliated with the following educational associations:

- American Association for Adult Education
- American Association of Colleges for Teacher Education
- American Association of Collegiate Registrars and Admissions Officers
- American Association of University Women
- American College Public Relations Association
- American Council on Education
- American Library Association
- The American School of Oriental Research
- American Society for Engineering Education
- Association of American Colleges
- Department of Baccalaureate and Higher Degree of the National League for Nursing
- Educational Films Library Association
- National Association of Student Personnel Administrators
- National Commission of Accrediting
- National University Extension Association
- Utah Conference on Higher Education
- Western Council for Higher Education in Nursing
- Western Interstate Commission on Higher Education
- Western Personnel Institute

In addition, Brigham Young University is fully accredited by the following organizations:

- Northwest Association of Secondary and Higher Schools
- American Chemical Society
- National Council for Accreditation of Teacher Education

National League for Nursing
Utah State Department of Public Instruction in cooperation with the
United States Office of Education for the training of vocational
home economics teachers.

Growth of the Student Body. When founded in 1875, Brigham Young Academy gave elementary and high school work only. Over the eighty-five years of its existence it has become in terms of full-time equivalent students the largest university in Utah. At the present time it is experiencing a rapid growth, which, if continued, will soon make it one of the largest institutions of the West.

At the time of its organization in 1875, nearly all of the students came from Utah County and its environs. Its student enrollment began at 29. During the regular 1957-58 school year, it had on the campus approximately 10,847 daytime resident students. This number combined with the enrollments of the Summer School and Laboratory Schools brings the total to 13,560 students. In addition, there were 27,999 enrollments in the Extension Services during 1958.

The students registered during the last few years came from the forty-nine states of the Union, the District of Columbia, the territory of Hawaii, the Panama Canal Zone, and from thirty foreign countries. Approximately 56 per cent of the students are from outside the state of Utah, and this percentage is increasing each year.

As in the days of Dr. Maeser, industry and thrift are encouraged, and at the present time approximately 45 per cent of all students are employed, earning part of their subsistence.

Membership in the Church of Jesus Christ of Latter-day Saints is not required for admission, although at the present time 97 per cent of the students are members of the Church. The other three per cent, as a condition of their continuance as members of the student body, are required to abide by the same standards of morality and integrity as other students.

SCIENCE AND ART COLLECTIONS

The archaeological collection consists of materials for study and research in the early history of man. Original antiquities on display, illustrating the early history of man in the Old World, range from crude stone "hand axes" of the Old Stone Age to inscribed tablets and other advanced products of the ancient biblical civilizations of the Near East; those illustrating the early history of man in the New World include representative artifacts of the early Indian cultures of Utah and the Southwest and antiquities of the ancient pre-Columbian civilizations of Mexico, Central and South America. Supplementing this exhibit are replicas of such famous archaeological monuments as the Rosetta Stone, key to the deciphering of the Egyptian hieroglyphics, and the "Tablet of the Cross" from the ancient Maya city of Palenque in Central America.

Also in the archaeological museum is a research archive of several thousand photographs and field card records of antiquities excavated or examined by archaeological expeditions of the university and other institutions.

The botanical collection includes an herbarium of fungi, liverworts, mosses and vascular plants from many parts of the world. The mycological collection consists of over 600 specimens of fleshy and parasitic fungi, most of which have been collected in the Rocky Mountain area. This represents one of the best collections of fleshy fungi of this region.

The vascular plant herbarium includes some 200 plant families, 1200 genera, and 4000 species. These are represented by over 25,000 herbarium sheets. The collection is made up principally of plants collected in the Western States, but

many plants of the Eastern States, Europe and South America are included as well as a good representation of the Arctic regions of Siberia, Iceland and the Aleutians. The grasses are especially well represented. A separate collection of poisonous plants, range plants, woody plants and plant diseases is maintained.

The department maintains a botany garden or arboretum where more than 300 trees of various regions of North America representing in excess of 100 species are grown in natural association. This garden is designed as an experimental project to enrich the tree flora available for use as shade trees, as a public educational exhibit and as a study area for many classes.

The fine arts collection of paintings, sculpture, drawings, etchings, engravings, monotypes, lithographs, and reproductions of works of art is as follows:

I. Memorial Collections.

1. The Lee Greene Richards Collection of 36 paintings.
2. The James T. Harwood Collection of 90 paintings, etchings, and drawings.
3. The John Hafen Collection of 24 paintings.
4. The Elbert H. Eastmond Collection of 64 paintings.
5. The John Willard Clawson Collection of 85 paintings and sketches.
6. The Maynard Dixon Collection of 85 paintings and sketches.
7. The Edwin Evans Collection of 61 paintings.
8. The Rose Hartwell Collection of 71 paintings.
9. The Rose Hartwell Crafts Collection.
10. The Joseph Imhof Collection of lithographs.
11. The Merlin A. Steed Collection of 70 paintings.

I. Other Utah artists represented: George M. Ottinger, Daniel Weggeland, Loris Pratt, John B. Fairbanks, Samuel Jepperson, Minerva Teichert, Alma Wright, Waldo Midgley, Calvin Fletcher, Cornelius Salisbury, Joseph Everett, Henri Moser, Torlief Knaphus, Avard Fairbanks, Henry Rasmussen, B. F. Larsen, Edgar M. Jenson, Glen H. Turner, and J. Roman Andrus.

III. Well-known national artists represented: Lee Randolph, George Elmer Browne, Fern Gary, Gordon Grant, Marie A. Hull, Haley Lever, Clarence Millet, Luis F. Mora, Chauncey F. Ryder, Matteo Sandona, W. Lester Stevens, Anthony Thieme, John Law Walker, J. Alden Weir, John Whorf, Eliot Daingerfield, George Pierce Ennis, John E. Costigan, George Henry Taggart, William Morris, Jon Corbino, J. Connaway, Robert Brackman, Peter Hurd, Marguerite Pearson, Henry W. Ranger, John Twachtman, John F. Carlson, Gene Kloss, Earle Loran, Emil Bistran, Umberto Romano, and Lez Haas.

IV. Original etchings, lithographs and prints, including the work of Ernest Fiene, Rockwell Kent, Joe Jones, Reginald Marsh, Waldo Pierce, Herbert Dunton, Boardman Robinson, Otis Dozier, Lawrence Barrett, John Taylor Arms, Kaethe Kollwitz, Gene Kloss, Conrad Buff, and Reynold W. Weidenaar. There are also 24 Rembrandt replicas.

V. Oriental art, including Japanese paintings, prints, and reproductions.

VI. Reproductions of famous works of art, including various types of modern art.

VII. Large collections of slides, including natural color slides and the George K. Lewis memorial collection of kodachrome slides.

The Lotta Van Buren Collection of ancient instruments and music contains rare old instruments, modern reproductions of ancient instruments, literature on ancient instruments, and a library of old instrument scores. In this collection are also some ancient costumes and pictures of interest.

Among the instruments, some of which were made in the Fifteenth Century, are the following: a viola da gamba (once owned by George Frederic Handel), five viols, a cittern, an Arabian lute, a two-manual harpsichord, a virginals, an octavina, two clavichords, a hurdy-gurdy, and other such instruments.

The Van Buren Collection is one of the few collections in the United States in which all instruments are in playable condition. Several concerts in which some of these instruments are used are given each year.

This unusual collection, housed in a specially equipped room (210 College Building), is open for inspection by the public.

The geological collections of the University consist of an unusually complete series of minerals and an interesting variety of fossils.

The minerals number many thousands and are representative of the great western mining districts together with hundreds of localities of note. Part of this collection once represented the nucleus of the famous Deseret Museum Collection of Salt Lake City.

The fossil series are representative of many states and typical world localities. Much of this material also was formerly a part of the Deseret Museum Collection.

The zoological and entomological collections of the university consist of a large series of identified vertebrate and invertebrate species from Utah and other areas. These materials are available for regular class work and for research.

The vertebrate collections consist of ample series of well preserved and cataloged species of fishes, amphibians, reptiles, birds and mammals. The collections include the Chester Van Buren collection of South American birds, the Robert G. Bee and John Hutchings collections of bird eggs, and the David Starr Jordan collection of fishes from the Hawaiian Islands. Several of our staff members have obtained collections from Mexico, the South Pacific islands, Formosa, and other distant localities, as well as an ample collection of local species.

The invertebrate collections include several hundred thousand insect specimens and their near relatives as well as other groups of animals. This collection includes a large number of medically important arthropods such as fleas, lice, mites, and ticks. There is a good representative collection of marine invertebrates from the California coast. The insect series includes special collections such as the Tom Spalding butterfly collection, the Charles W. Leng collection of beetles, and the Charles Schaeffer collection of weevils. These are in addition to many insect specimens collected locally and in other parts of the world by the university staff and students.

CAMPUS LIBRARIES

The Heber J. Grant Library Building contains the general library collection, which includes over 250,000 bound volumes, several thousand pamphlets, and an extensive collection of titles on microfilm and microcards. A good selection of profession journals and of other current periodicals, as well as local, regional, and national newspapers, is also available.

The Brigham Young University Library is a depository for United States government documents and receives regularly publications of state and local governments. The general library facilities are available to students, faculty, alumni, and other interested persons. Regularly enrolled students present their activity cards to borrow books. Others may obtain a permit from the Circulation Librarian. The library is open, during the college year, from 7:30 a.m. to 10:00 p.m., Monday through Friday and from 9:00 a.m. to 5:00 p.m. Saturdays. It is closed during assemblies each Monday, Wednesday, and Friday from 10:00

to 11:00 a.m. Vacation hours, when school is not in session, are 9:00 a.m. to 5:00 p.m., Monday through Friday, closed weekends and holidays.

Reserve book service for the Grant Library is maintained in rooms 212 and 213 of the McKay Building. Other books are placed on reserve in the library that houses the main collection for that particular subject area.

The Science Library is on the main floor of the Carl F. Eyring Science Center. Books and periodicals in the following subject fields are found housed in this collection: physical science, radio, engineering, photography, and antiquities. The university map collection is located in the map room of the Science Library.

The Life Sciences Library—including Biological and Agricultural Sciences, Nursing, and Home Economics—is in the west basement of the Family Living Center.

The Phonograph Record Library is in Room 3263 Family Living Center. All students and faculty are invited to use these facilities. Libraries are also maintained in connection with two laboratory schools on Lower Campus. These are available to students majoring in the College of Education as a part of their training program.

In Room 160 of the Student Service Center the Journalism Department maintains a reading room containing current copies of daily newspapers, news magazines of the United States, and daily and weekly newspapers of the Intermountain region. A collection of periodicals in agriculture is located in Room 160 of the Brimhall Building.

The Special Collections of the university library are located in the Heber J. Grant Library Building. The books and other material housed in this area are not available for general circulation. Such collections often come to the library from individuals whose interests lead them to devote many years to their acquisition. The material within each collection is usually confined to a specific subject area. The Brigham Young University collection of Mormon-Americana and the William Gates collection of Middle-American Linguistics are an indication of the variety of materials available in Special Collections.

The facilities of other libraries operated by the L.D.S. Church are also available to students of the Brigham Young University. The L.D.S. Genealogical Society Library, located at 80 N. Main Street in Salt Lake City, is open every day except Sunday. This collection contains approximately 55,000 books and 125,000 rolls of microfilm. These include family histories, genealogy, biography and autobiography, military records, cemetery inscriptions, town, county and state histories of the United States and both local and national histories of other nations.

Facilities of the Library of the Church Historian's Office are available to advanced students for research, by arrangement. It is located in Room 103 of the L.D.S. Church Office Building, 47 E. South Temple, in Salt Lake City, and is open from 8:30 a.m. to 5:00 p.m., Monday through Friday. Its collections contain publications of the Church, periodicals of the various auxiliary organizations, reports and histories of the various missions, general history of the Church, biographies of Church leaders, and other pertinent published and archival material.

Requirements for Admission

Admission

Admission to the university is granted on the basis of an official application. The necessary forms will be furnished by the Admissions Office upon request.

Applications should be submitted at least **thirty days** prior to the time of registration. Students who submit applications after this day may encounter delay and inconvenience in their admission and registration. Late registration resulting from late application subjects the applicant to the late registration fee.

To be admitted to the university as a regularly matriculated student, an applicant must be a graduate of an approved high school and must have selected nine academic units from one or more of the following areas: English, mathematics, science, social science, or foreign language.

To be eligible for regular admission, a student must also have a grade-point average of 2.2 (A=4.0, B=3.0, C=2.0, D=1.0, E=0) in his previous high school or a 2.0 average in previous college work. If a student has a grade-point average of 2.0 to 2.2 he may be admitted on academic probation.

Students who apply for admission and who are accepted by Brigham Young University are required to maintain ideals and standards in harmony with those of the Church of Jesus Christ of Latter-day Saints. High standards of honor, integrity, and morality, graciousness in personal behavior, application of Christian ideals in everyday living, and abstinence from alcohol and tobacco are required of every student.

A student who has not graduated from high school but who has sixteen units (Carnegie) of high school credit may be admitted if his course of study and grades are approved by the Admissions Committee.

Students nineteen years of age and over who have not completed high school but who are otherwise eligible for admission may register as regularly matriculated students after the successful completion of the high school level General Education Development Tests. These tests may be taken at Brigham Young University, at the testing divisions of most colleges and universities, at most Armed Forces Educational Centers, or at a number of high schools.

All new freshmen and sophomores are required to take the University Entrance Test at orientation time or as scheduled by the University.

Students who are planning to enter the Graduate School should consult the Graduate School section of the catalog for information on admission.

Requirements for Undergraduate Work

Course Divisions

Courses of study are given numbers as follows:

Preparatory and remedial courses	1-99
Lower division courses	100-299
Upper division courses	300-499
Courses for graduates or advanced undergraduates	500-599
Graduate courses	600 and above

Election of Studies

With the advice and approval of the dean of the college in which he registers, the student should elect such studies as are desirable. The major and minor, as well as the general requirements for graduation, should be kept in mind in electing studies. For health and physical education requirements see "Requirements for Graduation."

Should a currently enrolled student desire to take courses by correspondence or in extension classes, the approval of the student's dean must be secured and the correspondence or extension work will be considered a part of his load. Students will be held responsible for any unauthorized overload for which they register, and such credit will not be allowed. Resident students of other institutions who apply for correspondence or extension class work at this university must have their proposed registration approved by the dean of their college in the institution in which they are registered. Students wishing to transfer correspondence credits from other institutions are subject to examination by the university department concerned.

At least five quarters of lower division work should be completed before the student registers for upper division work, unless in certain sequences the dean, with the consent of the instructor, advises otherwise. Included in the lower division work must be English 110 or 111; 112 or 115; and 113 or 116; and, for the B.A. degree, twelve hours in foreign language work. In order to qualify for the Bachelor of Arts degree, a candidate must furnish a training equivalent to 24 hours of college credit in a foreign language.

Classification of Students

At the beginning of each quarter regular students will be classified for that quarter as follows:

Credit hours earned	Classification
0 to 46	freshman
47 to 92	sophomore
93 to 139	junior
140 and over	senior

Completion of the required courses in freshman composition is prerequisite to classification as a junior.

A student who has met the entrance requirements but who registers for nine hours of work or less will be classed as a part-time student.

A regular student who has completed all requirements for the bachelor's degree is classed as a graduate student from that time on and must register in the Graduate School regardless of whether he registers for graduate or undergraduate courses or for study not intended to be used for a higher degree. Admission procedures to the Graduate School are indicated in the Graduate Catalog and apply to those who have graduated from Brigham Young University as well as from other universities.

Credits

A student may have credit entered on the books of the university as follows: 1. For work done in the regular courses offered by the institution. 2. For work done in an accredited college when such credit is to be used for graduation from the university, the amount to be determined by the Committee on Admissions and Credits. 3. By passing a satisfactory examination in any course offered by the university under the supervision of the head of the department concerned. Credits from other schools should be filed with the registrar upon entrance.

Special examinations for credit will be given only with the consent of the head of the department concerned, the dean of the college in which the student is registered, and the committee on Admissions and Credits.

An incompleted course of study must be completed within one year from the end of the quarter when the incomplete was given. If a student does not complete a course within the prescribed time, his grade for the course automatically becomes an "E".

By payment of an auditing fee, a student may obtain permission to audit courses of instruction. Under no circumstances can credit be obtained by means of special examinations for courses which have been audited.

A fee of \$5.00 per credit hour is charged for special examinations, provided the total fee for any one subject does not exceed \$40.00.

It is the policy of the university to send quarterly grade reports to the parents of unmarried freshmen students under twenty-one years of age and to parents of all unmarried students under 21 years of age who are on failure or probationary status.

All veterans should have their military experience evaluated for credit by applying to the Veterans' Coordinator, room 116 in the Maeser Building.

Withdrawal from Classes

Students discontinuing registration at the university are required to clear their termination through the office of the dean of their college and then the dean of students.

Students withdrawing from individual classes shall clear with the dean of the college or the chairman of general registration if they are not in a college.

- a. If a student officially withdraws from a class during the first three weeks of a quarter, the permanent record will show no registration for the class in question.

- b. If a student officially withdraws from a class during the second three weeks of a quarter, the permanent record of the student will show the letter "W" for the class in question.
- c. Except for reasons beyond his control a student who officially withdraws after the first six weeks of each quarter will have "WE" shown on his permanent record for each class dropped. A "W" grade does not count for or against grade points in computing the grade point average. A "WE" grade counts the same as an "E" grade in computing the grade point average.
- d. If a student drops a class any time during the quarter without officially withdrawing, he will receive a grade of "UW" (meaning unofficial withdrawal) in every course so dropped. This will indicate that the student has failed to clear officially with the university. This grade will count in grade points the same as a failure grade of "E."

Withdrawal from Evening School Classes. Any student who wants to withdraw from a class for which he registered in the Extension Services office must do so by notifying that office and completing the withdrawal forms. An evening school student who does not properly withdraw will receive a failing grade.

Limitation on Credit in One Quarter

Undergraduate students in good standing may register for as many as 17 hours of credit in any one quarter by following the regular registration procedures. In the case of a student who has academic ability of high quality, the dean of a college or the chairman of general registration may authorize the student to register for a maximum of 18 hours for the first quarter in residence and a maximum of 19 hours for any succeeding quarter. Any student who has completed 15 or more hours of college work and who has a cumulative average of 3.5 (or a 3.5 average in the quarter previous to registration) may register, with the consent of his dean, for 21 hours. Any exceptions to the above rules shall be presented to the Deans' Council for consideration.

Standards in English

Throughout his college career, each student is expected to use the English language accurately and effectively. A booklet entitled "English Standards at Brigham Young University," on sale at the Student Supply, gives detailed information on what is expected of the student.

Each junior is expected to pass an essay examination as a demonstration of his ability to write effectively. Anyone failing that examination will take a non-credit remedial course to correct his deficiencies.

Students of the university are expected to maintain acceptable standards of usage in oral and written English in recitations, written assignments, examinations, and all other academic work. This requirement will be enforced by teachers in all subjects and by the action of a committee representing the entire university.

Certification for Teaching

All students who are preparing for a teaching certificate must secure written approval of their programs from the Teacher Certification Office of the College of Education. Those who delay this later than the first quarter of their sophomore year may be delayed beyond graduation for the completion of their certification requirements.

Requirements for Graduation

General

For a student to be admitted to candidacy for a diploma or a degree, his scholastic record must show that he has satisfied the entrance requirements and that he can fulfill all the requirements for graduation on completion of the courses for which he is registered. The student must earn at least forty-five quarter hours of credit on the Brigham Young University campus at Provo.

The following graduation requirements apply to all candidates for a bachelor's degree from any of the colleges of the university.

Total amount of credit	186 hours
Upper division work (minimum)	60 hours
Requirement for a major	30 or more hours
Requirement for a minor	20 hours

A candidate for a Bachelor of Arts degree is required to furnish training equivalent to twenty-four hours of college credit in one foreign language. A candidate for a Bachelor of Science degree is not required to submit credit in a foreign language.

Not more than thirty-five hours of the 186 hours required for a bachelor's degree may be correspondence credit.

Not more than twenty-eight hours of "D" grade credit will be applied toward graduation.

Students who expect to be graduated at the end of the Spring Quarter should file application with the Registrar's office not later than January 15th. Students who fulfill all requirements for graduation at the close of the Summer Quarter and who have filed applications for graduation not later than March 15th will participate in the Summer School commencement exercises in August. All conditions must be removed not later than four weeks before graduation.

All graduating seniors must attend the graduation exercises unless they have been excused or have made satisfactory explanations of absence. Absence will be excused when based upon any of the following reasons:

1. Prior entrance into the armed services
2. Completion of work at the university prior to Spring Quarter and present employment which makes it impossible to attend commencement
3. Serious illness or death in the family or some other emergency
4. Enrollment in another school or university
5. Service in the mission field

Students not officially excused from commencement will not be graduated until they attend a later commencement in person.

The university reserves the right to change the requirements for graduation, and a candidate for graduation will be asked to comply with all changes which pertain to the uncompleted portion of his course.

All candidates for a bachelor's degree must fill the group requirements listed below under the topic "General Education Program."

GENERAL EDUCATION PROGRAM

Physical Science	9 hours
Biological Science	8 hours
Social Science	15 hours
Freshman Composition 111, 112, 113	9 hours
or	
Freshman Composition 115, 116	6 hours
Humanities and Aesthetics	15 hours

Religion. Two credit hours in religion are required of every student for each quarter in which he is a full time student at B.Y.U., including the Summer Quarter. To be eligible for graduation, special students enrolled at Brigham Young University shall be required to accumulate credit in religion at the ratio of one credit hour to eight credit hours in other subjects taken at the university.

History. Five credit hours in American history and government are required for graduation. (See Department of History.)

English. English 110, 112, 113; or 111, 112, 113; or 115, 116 or their equivalents are required of all students.

Each student with more than ninety quarter hours of credit who has completed his Freshman Composition requirement must take the Junior English Proficiency Examination the first quarter in which he is eligible for it. If he fails this examination, he must take a non-credit remedial course during the next quarter in which he is a full-time student to correct his deficiencies before he may take the Proficiency Examination again. Passing this examination is a graduation requirement.

Health. Each student is required to complete successfully Health 130 some time during his freshman year. Transfer students must have the equivalent or take the course before graduation. **Exceptions:** (1) Students enrolled in the College of Nursing who complete Nursing 202 and 212 are not required to take Health 130. (2) Veterans with at least one year of military service are allowed credit for Health 130.

Physical Education. Each student is required to complete successfully one lower division physical education service course during each quarter of his freshman year. Transfer students must have the equivalent or take the courses before graduation. **Exceptions:** (1) Students who are majoring in and who complete the course in engineering science together with requirements for an air science commission are not subject to the above requirement. (2) Freshman air science students need take only two of the usual three required quarters of physical education. Withdrawal from the air science program before completion of six credit hours imposes the full physical education requirements. (3) Veterans with at least one year of military service are allowed three hours credit in physical education.

Students desiring exemption from physical education for medical reasons must obtain an excuse from the University physician. Written statements from the local doctor must be approved by the university physician.

GENERAL EDUCATION COURSES

The object of the general education requirements of the university is to introduce the student as broadly and effectively as possible to fundamental fields of learning and assist him in coming to an understanding of some of the important influences that bear on human living. In order that these purposes may be achieved, the basic areas have been grouped, and specified courses within these areas have been approved from which students may select courses in fulfillment of general education requirements. The student is advised to fill these requirements by registering for courses in these groups at an approximate rate of four to five hours per quarter in addition to two hours in religion throughout his entire four years of study. Courses with prerequisites are preceded by a dagger (†).

1. Physical Science, 9 hours. (chemistry, geology, physics)

Option 1. At least one course must be selected from two of the following three departmental lists, so that a minimum of nine credit hours is accumulated:

- Chemistry 100 (3) Elementary College Chemistry
 Chemistry 101 (5) Introductory General Chemistry (for family living, nursing, general biology, and agriculture students)
 †Chemistry 102 (4) Introductory Organic Chemistry (for family living, nursing, general biology, and agriculture students)
 †Chemistry 105, 106, 107 (4-4-4) General College Chemistry (designed for engineering students)
 †Chemistry 111 (5) Principles of Chemistry
- Geology 101 (3) Introduction to Geology
 Geology 102 (1) Introduction to Geology Laboratory (may be taken only if accompanying Geology 101)
 Geology 103 (3) Life of the Past
 Geology 111 (5) Physical Geology
- Physics 101 (3) Essentials of Physics
 Physics 102, 103, 104 (3-3-3) Fundamentals of Physics
 †Physics 111, 112 (5-5) General Physics (designed primarily for pre-medical and biological science majors)
 Physics 127 (3) Descriptive Astronomy, "The Solar System"
 Physics 128 (3) Descriptive Astronomy, "The Stellar System"
 Physics 137 (4) Weather and Climate
 Physics 177 (4) Physics of Light and Photography
 †Physics 211, 212 (5-5) General Physics (designed primarily for physical science and engineering majors)

Option 2. The physical science requirement may be met by completing all nine hours in Physical Science 101, 102, 103 (3-3-3) with the understanding that no part credit in these courses may be used in fulfillment of Option 1.

Physical Science 101, 102, and 103 would be suitable for students having little background in science, as well as for those who intend to specialize in a scientific field.

For course description see Physical Science under general list of courses.

2. Biological Science, 8 hours. (bacteriology, botany, zoology and entomology). To satisfy the general education requirement in biological sciences, the student must complete a minimum of 8 quarter hours of college credit. This shall include at least one of the following three courses: Bacteriology 121 (Bacteriology 301 for engineering students), Botany 101 or Zoology 105 (Zoology 109 for nursing and physical therapy students). The remaining requirements shall be satisfied by taking another of these three courses or any of the following courses approved for general education in the Departments of Bacteriology, Botany, and Zoology:

- Bacteriology 121 (4) General Bacteriology
 †Bacteriology 301 (5) Microbiology
 Bacteriology 311 (3) Sanitation and Public Health
 †Bacteriology 381 (3) Water and Sewage Bacteriology (for engineering students only)
- Botany 101 (5) General Botany
 Botany 112 (4) The Plant Kingdom
 Botany 123 (5) Plant Classification
 †Botany 145 (3) Principles of Genetics
 Botany 230 (3) Trees and Shrubs
 †Botany 430 (5) Plant Ecology
 †Botany 435 (3) Plant Geography
 Botany 451 (3) Conservation of Natural Resources

Aerial view of Upper Campus



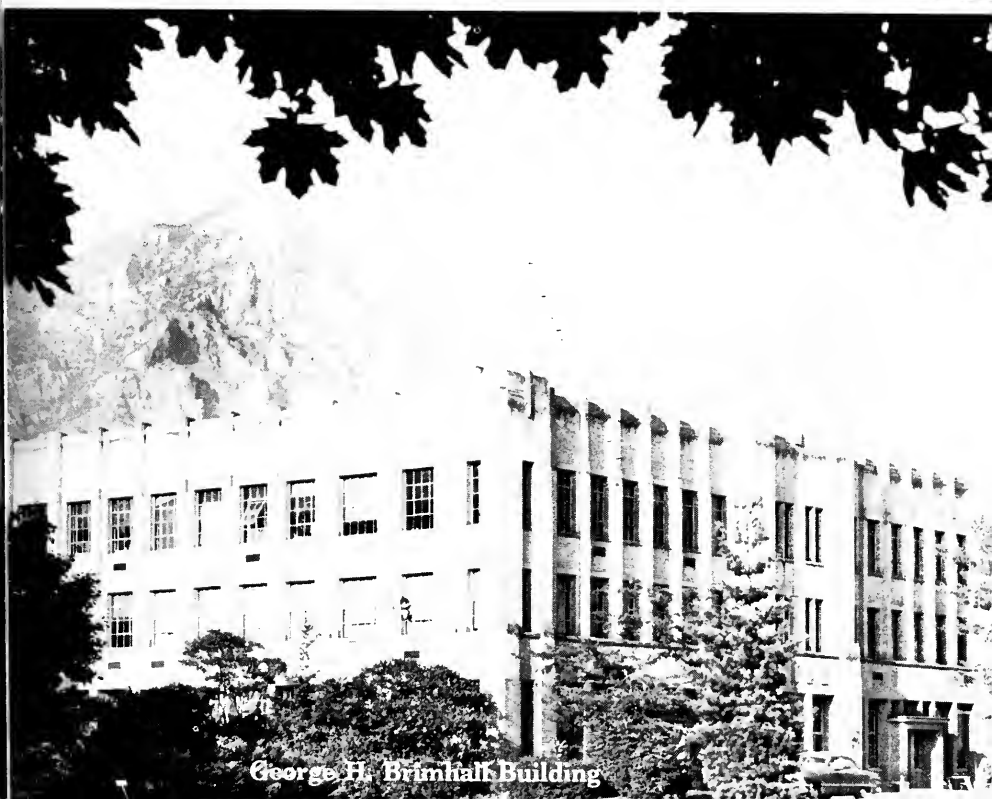


Students Enjoy Weekly Devotionals

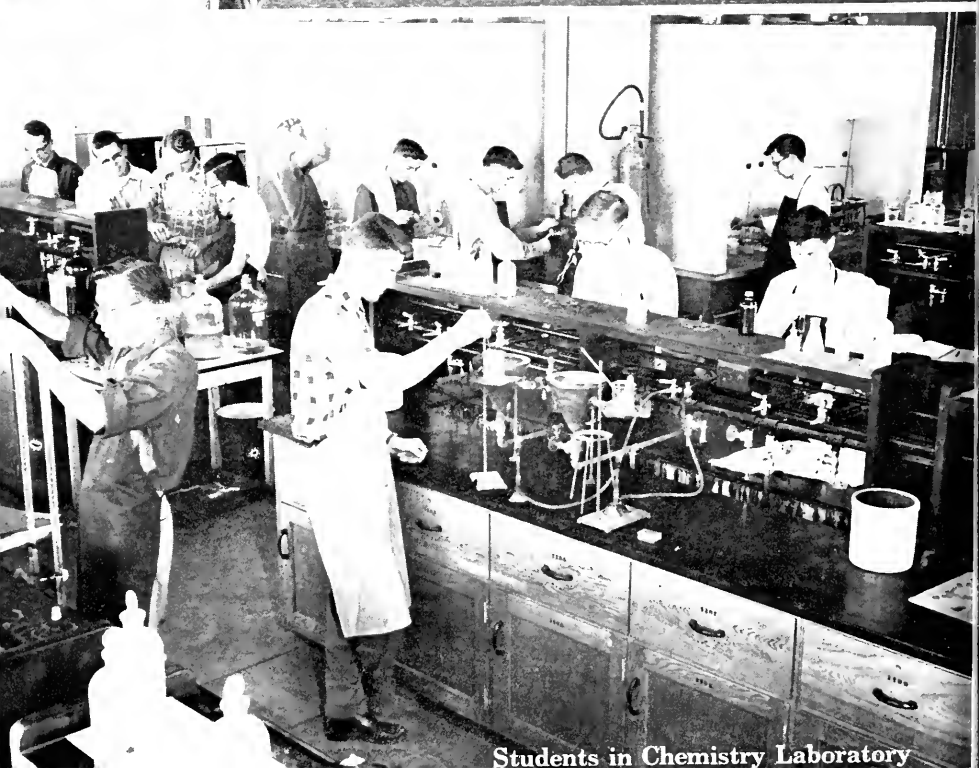
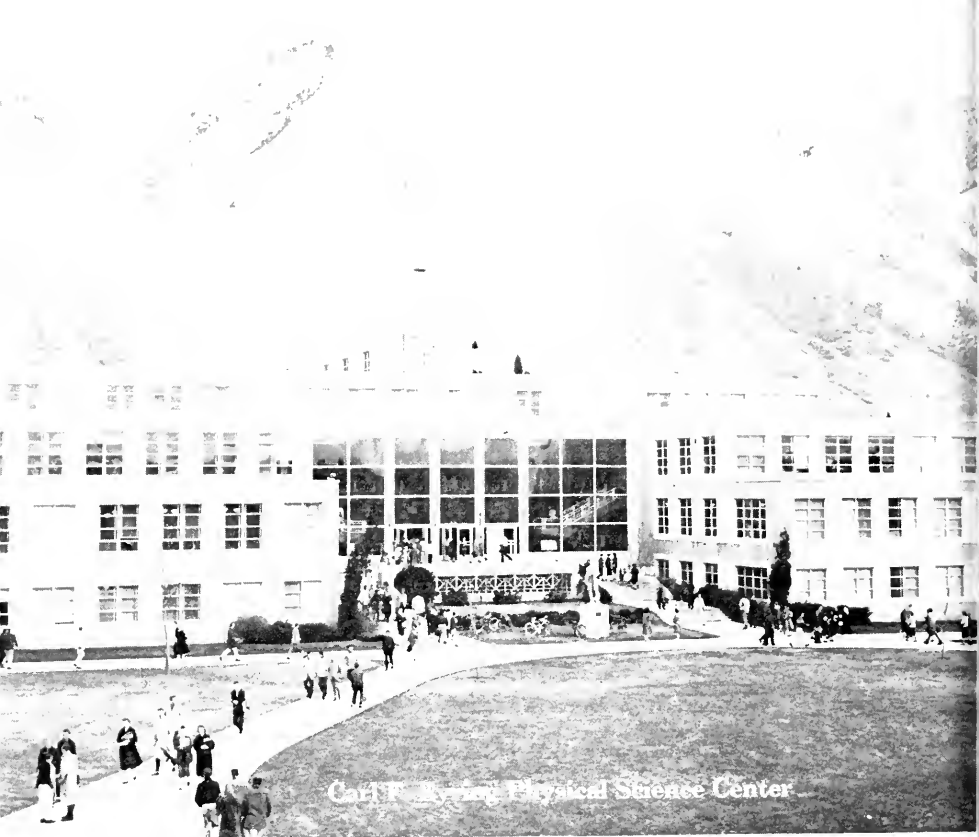


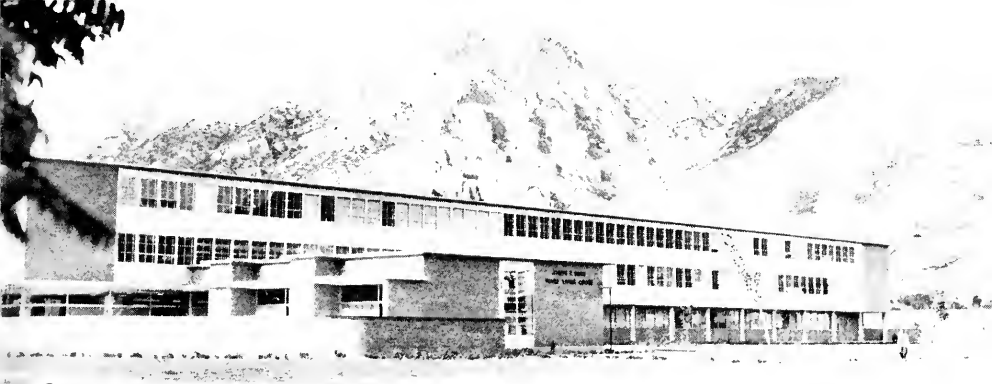


David O. McKay Building



George H. Brimhall Building





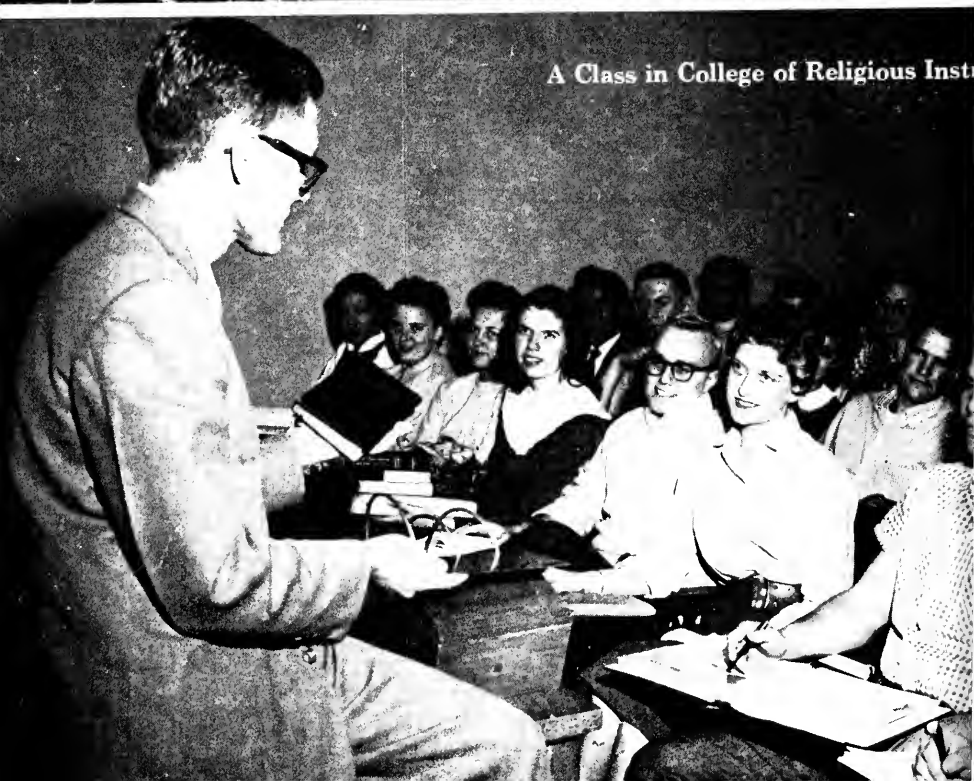
Joseph F. Smith Family Living Center

Interior View of Smith Family Living Center





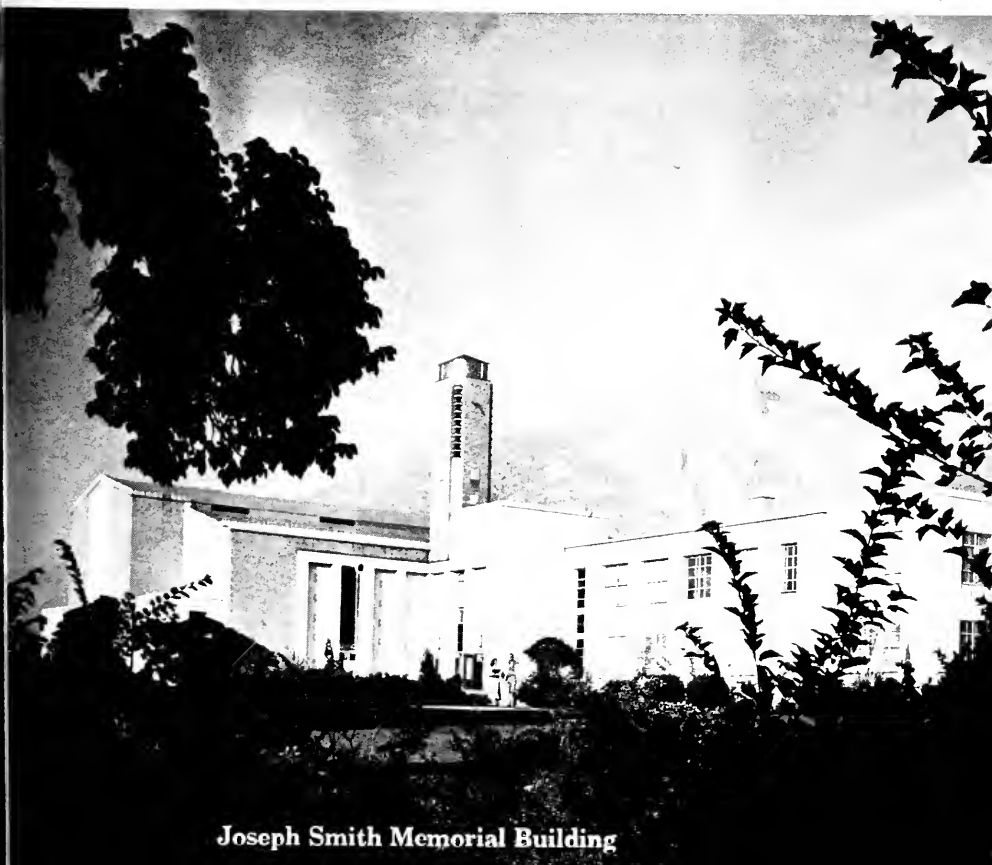
Students in Homemaking Education Class



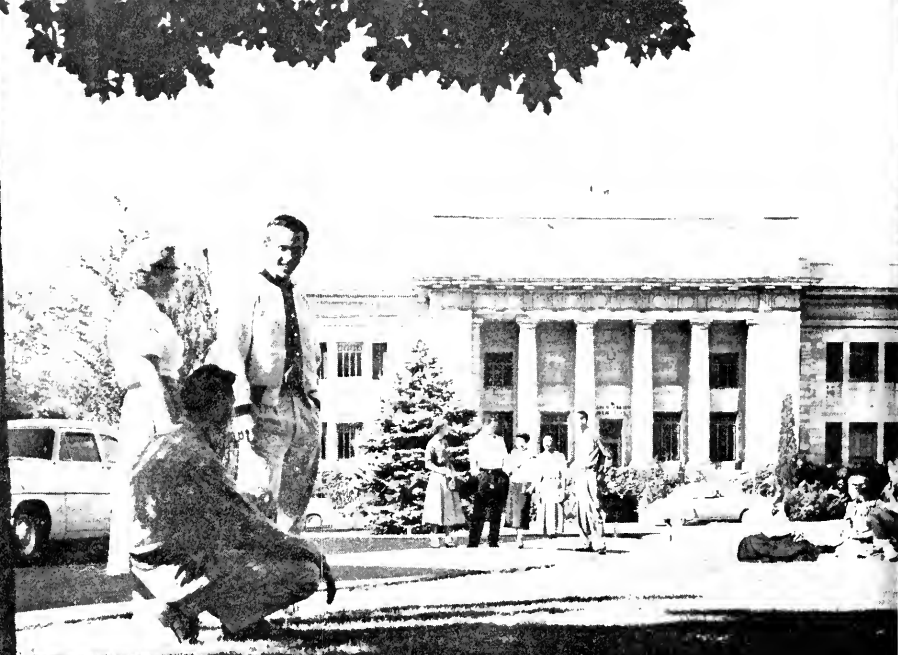
A Class in College of Religious Instr



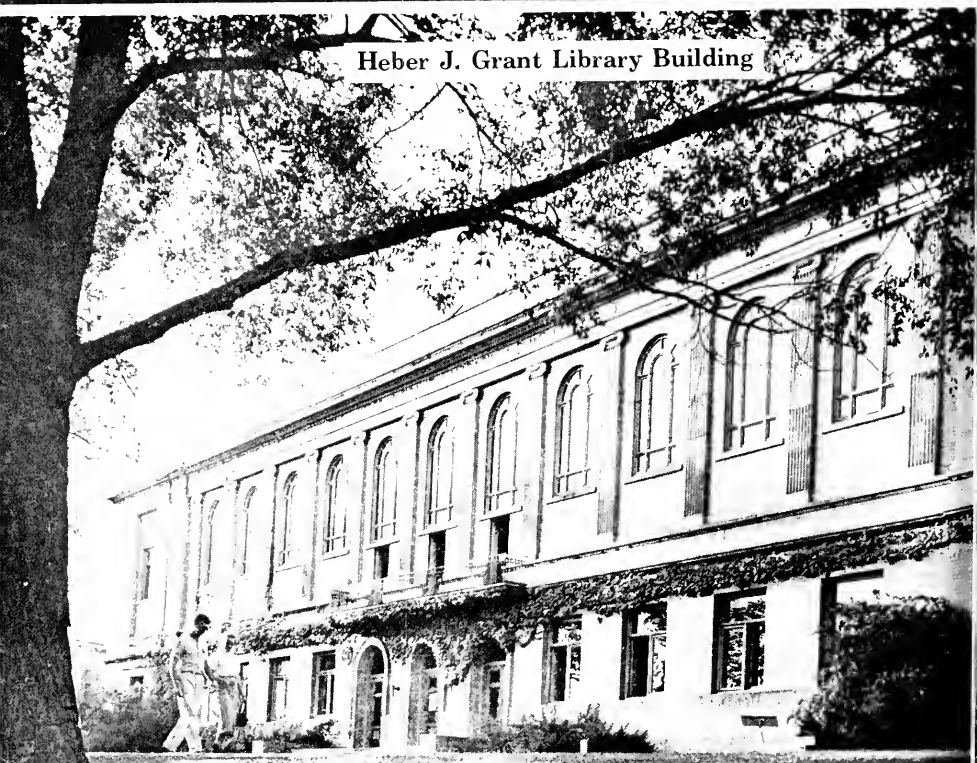
Herald R. Clark Student Service Center



Joseph Smith Memorial Building



Karl G. Maeser Memorial Building



Heber J. Grant Library Building



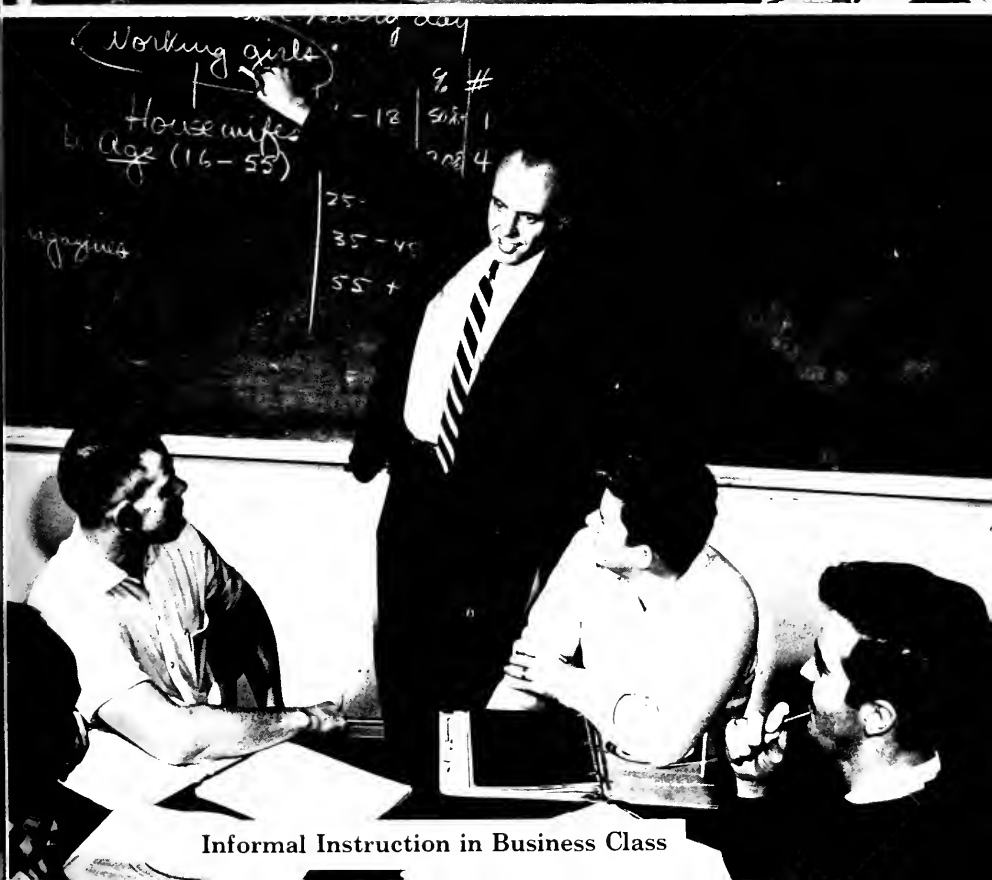
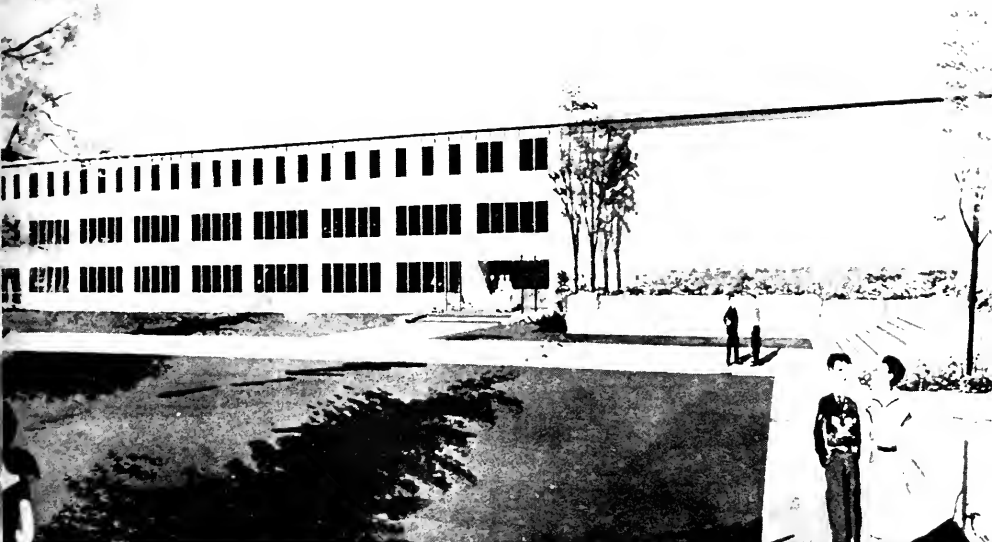
Architect's Drawing of New Administration Building

Architect's Drawing of New Library





Architect's Drawing of New College of Business Building

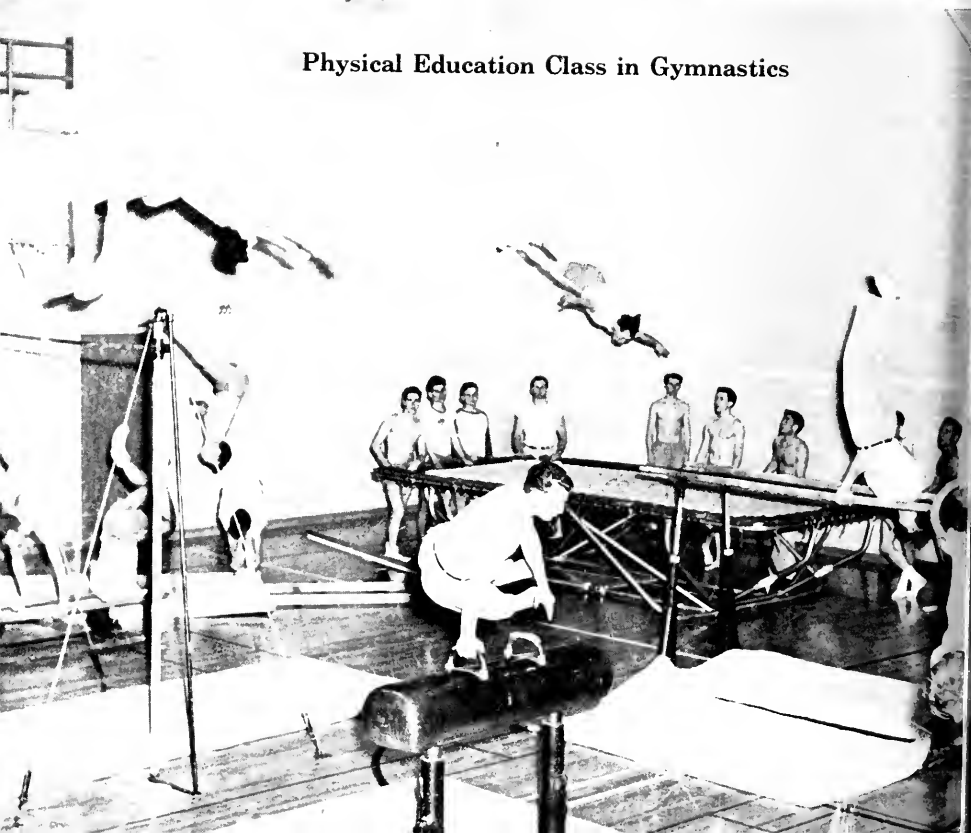


Informal Instruction in Business Class

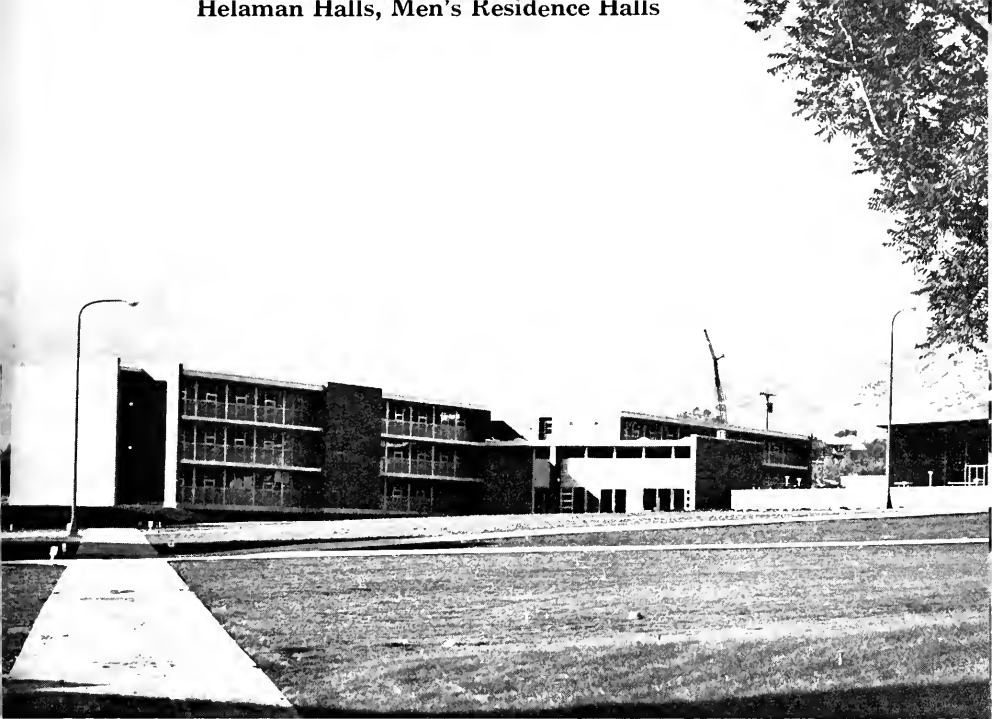
George Albert Smith Fieldhouse



Physical Education Class in Gymnastics



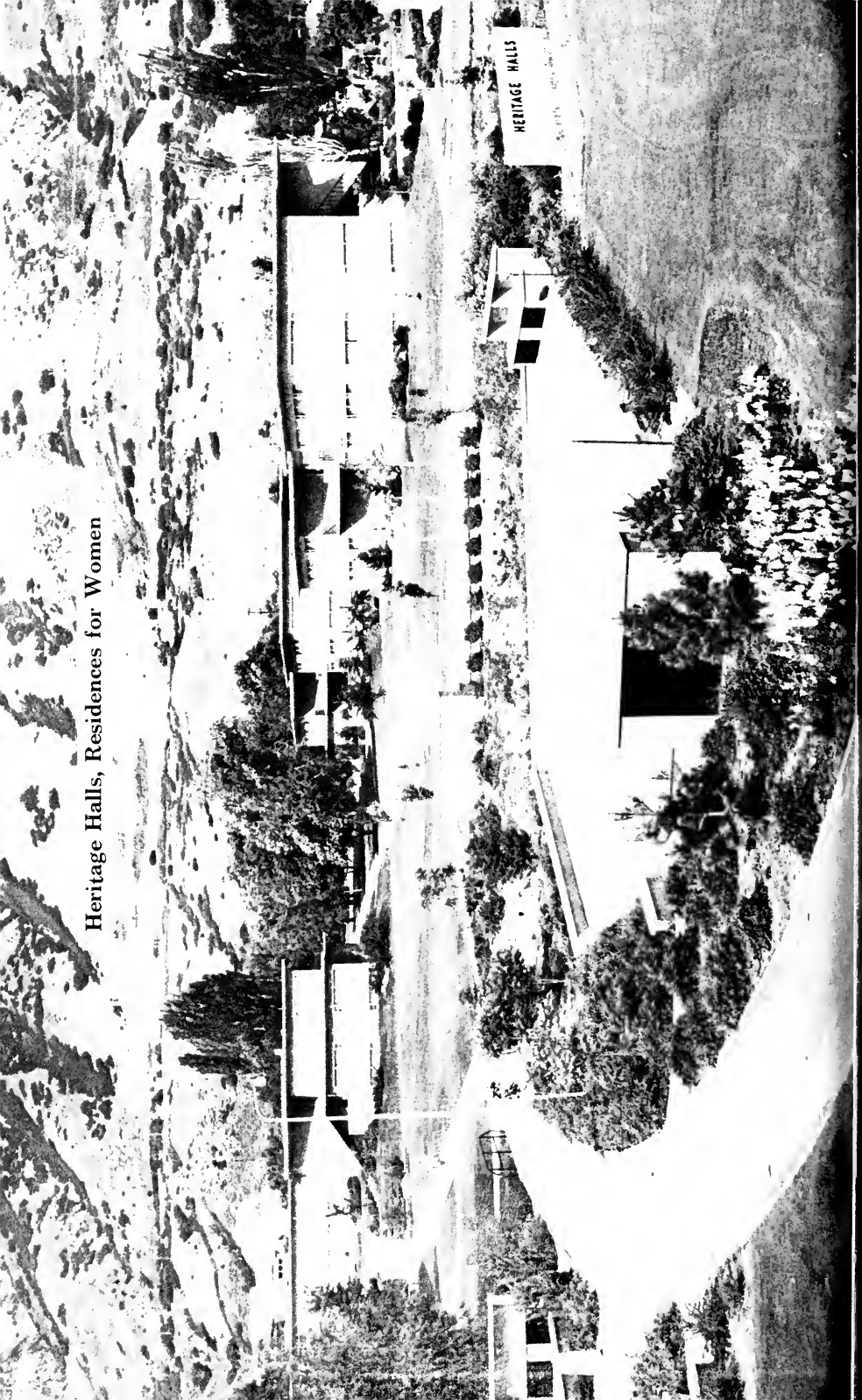
Helaman Halls, Men's Residence Halls



Lounge in Cannon Center, Helaman Halls



Heritage Halls, Residences for Women



Knight-Mangum Hall



Village Accommodations for Married Students and Their Families



Student Participation in D



Instruction in Zoology Labora

- Zoology 105 (5) General Zoology
 †Zoology 164 (5) Human Anatomy and Physiology
 †Zoology 176 (3) Survey Course in Heredity
 Zoology 230 (5) Introductory Entomology
 Zoology 357 (3) Natural and Human Resources
 †Zoology 550 (5) Principles of Ecology and Bio-geography

3. Social Science, 10 hours. (economics, human development and family relationships, geography, political science, psychology, sociology) At least two fields must be included in fulfillment of the requirements of this group. Only the following courses may apply toward fulfillment of this requirement:

Agricultural Economics 101 (5) Economics and Agriculture

- Economics 101 (5) Economic Principles and Problems
 Economics 102 (3) Economic Principles and Problems
 Economics 461 (3) Labor Problems and Labor Relations
 Economics 575 (5) Government Finance

- Geography 105 (5) Introduction to Geography
 Geography 110 (5) Geography in World Affairs
 Geography 223 (5) Economic Geography
 Geography 310 (5) Geography of North America
 Geography 430 (5) Europe

†Human Development and Family Relationships 210 (3) Child Development I
 Human Development and Family Relationships 360 (3) Achieving Success in Marriage

†Human Development and Family Relationships 361 (3) Family Relationships
 †Human Development and Family Relationships 412 (3) Principles of Child Guidance

†Human Development and Family Relationships 440 (3) Family Life in the Middle and Later Years

- Political Science 105 (2) Current Affairs
 Political Science 110 (5) American Government
 Political Science 111 (5) State and Local Governments
 Political Science 112 (5) Foreign Governments
 Political Science 115 (4) Introduction to International Relations

Psychology 111 (5) General Psychology
 †Psychology 205 (3) Applied Psychology
 †Psychology 320 (3) Psychology of Childhood
 †Psychology 321 (3) Psychology of Adolescence (Either Psychology 320 or 321 —not both—may apply.)

†Psychology 322 (3) Psychology of Adult Life
 †Psychology 340 (3) Mental Hygiene
 †Psychology 350 (3) Introduction to Social Psychology
 †Psychology 550 (4) Psychology of Personality

- Sociology 111 (5) Introductory Sociology
 Sociology 112 (5) Social Problems
 Sociology 121 (3) Applied Sociology
 †Sociology 350 (3) Introduction to Social Psychology
 Sociology 443 (3) Sociology of Adjustment in Modern America
 Sociology 499 (3) Community Organization, Action and Planning

4. Humanities and Aesthetics, 15 hours. (archaeology, art, English, literature, history, journalism, languages, music, speech.) In a fifteen-hour total the student must take at least six hours of literature and some work in at least two other departments. A full year's beginning course of fifteen hours in a foreign language shall carry six hours of credit toward the satisfaction of this group requirement and may reduce the requirement in literature to three hours. The student may take any literature course for which he has adequate background. Those English courses listed below are especially recommended. For the non-

literature part of this requirement (archaeology, art, history, etc.), only those courses listed below will be counted.

- Archaeology 150 (4) Introduction to Archaeology
 Archaeology 221 (4) Peoples and Culture
 †Archaeology 310 (3) General Near Eastern and Biblical Archaeology
 †Archaeology 360 (3) Ancient Civilizations of America

- Art 101 (2) Introduction to Art
 Art 110 (2) Theory and Practice of Design
 Art 111 (4) Basic Design (Either Art 110 or 111—not both—may apply.)
 Art 121, 122 (4-4) Elementary Drawing
 Art 227 (2) Oil Painting
 Art 233 (2) Watercolor Painting
 Art 259 (2) Ceramics
 Art 263 (2) Crafts
 Art 306 (3) Art History and Appreciation
 Art 307 (3) Contemporary Art
 Art 308 (3) American Art
 Art 403 (2) Ancient and Primitive Art
 Art 404 (2) Medieval Art
 Art 405 (2) Renaissance Art
 Art 501 (3) Aesthetics

- Economics 274 (5) Economic and Financial History of the United States
 Economics 580 (5) History of Economic Thought (Except for Economics majors.)

- English 241, 242, 243 (3-3-3) Masters of the Drama
 English 250 (4) Introduction to Literature
 English 252 (3) Introduction to Poetry
 English 253 (3) Introduction to Drama
 English 254 (3) Introduction to Biography
 English 261, 262, 263 (2-2-2) Masterpieces of American Literature
 English 271, 272, 273 (2-2-2) Masterpieces of English Literature
 English 282 (3) Shakespeare
 English 331, 332, 333 (3-3-3) The English Novel
 English 335, 336 (3-3) The American Novel
 English 345 (4) The Spirit of Tragedy
 English 350 (3) The Bible as Literature
 English 356, 357, 358 (3-3-3) World Classics
 English 359 (3) The Short Story
 English 366 (3) Modern Poetry
 English 367 (3) English and American Folk Poetry
 English 376 (3) Twentieth Century English Literature

- History 110 (5) World Civilization I
 History 111 (5) World Civilization II
 History 120 (5) The United States to 1865
 History 121 (5) The United States since 1865
 History 300 (3) Early Oriental History
 History 304 (5) Greek History and Civilization
 History 307 (5) Roman History and Civilization
 History 312 (3) Renaissance and Reformation
 History 323 (3) Europe in the Twentieth Century
 History 330 (5) Russia
 History 332 (3) France Since 1660
 History 333 (3) Modern Germany
 History 334 (3) Spain
 History 335 (5) England
 History 340 (5) Asia
 History 345 (5) China
 History 346 (3) Japan
 History 347 (3) India
 History 351 (3) Latin America (Colonial)

- History 352 (3) Latin America (National)
 History 360 (3) The American Frontier
 History 366 (3) Utah
 History 373 (3) American Intellectual and Cultural Growth

Humanities 101 (5) Introduction to the Humanities (Two hours of credit from this class may be applied toward fulfilling the general education requirement in literature. The three remaining hours may be counted toward fulfilling the Humanities requirement, but the student must also take courses in a third department from those listed under Humanities and Aesthetics.)

- Humanities 459 (3) Lyric Theatre

- Journalism 101 (3) Introduction to Mass Communications
 Journalism 305 (5) History of Mass Communications

- Music 101 (3) Survey Course in Music
 Music 301 (2) Elementary Baton Technique and Hymnody
 Music 302 (2) Intermediate Baton Technique and Ward Choir Direction
 Music 383 (2) History of Sacred Music
 †Music 484, 485 (3-3) History of Secular Music

Participation in all choral and instrumental organizations (1 hour total)
 Private instruction on any instrument or in voice (2 hours total)

- Philosophy 308 (3) Survey of Philosophy
 Philosophy 310 (3) Introduction to Logic
 Philosophy 420 (3) Ethics
 Philosophy 424 (3) Problems of Knowledge
 Philosophy 425 (3) Philosophy of Science

- Speech 121 (3) Voice and Diction
 †Speech 122 (3) Fundamentals of Interpretation
 Speech 123 (5) Fundamentals of Acting
 Speech 316, 317, 318 (3-3-3) Theatre History
 Speech 325 (3) Advanced Interpretation

The first year course in any foreign language fulfills six hours of the group requirement, provided that the student completes the entire course (15 hours). No credit on the group requirement will be given for part (5 to 10 hours) of the first year language course.

Prerequisite to the literature courses in foreign languages are 30 hours of the language or the consent of the instructor. The following language courses may be applied to satisfy the literature requirement in the humanities and aesthetics groups:

- †French 431, 432, 433 (3-3-3) Masterpieces of French Literature
 †French 441, 442, 443 (3-3-3) Survey of French Literature and Culture
 †German 431, 432, 433 (3-3-3) Masterpieces of German Literature
 †German 441, 442, 443 (3-3-3) Survey of German Literature and Culture
 †German 541 (3) Lessing
 †German 542 (3) Schiller
 †German 543 (3) Goethe
 †Italian 431, 432, 433 (3-3-3) Masterpieces of Italian Literature
 †Portuguese 431, 432, 433 (3-3-3) Masterpieces of Brazilian and Portuguese Literature
 †Russian 431, 432, 433 (3-3-3) Masterpieces of Russian Literature
 †Spanish 431, 432, 433 (3-3-3) Masterpieces of Spanish and Spanish-American Literature
 †Spanish 441, 442, 443 (3-3-3) Survey of Spanish Literature and Culture

5. Religion. In fulfilling the requirement that for each quarter of full-time study at B.Y.U. a student must complete two hours of credit in religion, freshmen and sophomores, with the exception of returned missionaries, should select their courses from the following areas:

- Church Administration 141, 142, 143 (2-2-2) Missionary Approach to the Gospel

- Church History 131, 132, 133 (2-2-2) L.D.S. History and Doctrine
 Scripture 111, 112, 113 (2-2-2) Introduction to the Book of Mormon and Its Teachings
 Scripture 123, 124, 125 (2-2-2) Introduction to the New Testament and Its Teachings
 Theology 101, 102, 103 (2-2-2) An Introduction to Mormonism
 Theology 104, 105, 106 (2-2-2) The Principles and Doctrines of Mormonism

Juniors and seniors should obtain a minimum of six hours in one or more of the following areas. All transfer students ranking as juniors and all returned missionaries are not only permitted but are expected to select upper division courses in religion.

- Church Administration 301 (2) Priesthood and Church Government
 Church Administration 311 (2) The Church Welfare Program
 Church Administration 317 (2) The Principles of Genealogy and Temple Work
 Church Administration 318 (2) Methods of Genealogical Research
 Church Administration 321 (5) Training for Prospective Missionaries
 Church Administration 322 (5) Latter-day Saint Doctrine for Prospective Missionaries
 Church Administration 349 (2) Economics of the Gospel Plan
 Church History 301, 302, 303 (2-2-2) History of the Church of Jesus Christ of Latter-day Saints
 Church History 304, 305, 306 (2-2-2) History of the Church of Jesus Christ of Latter-day Saints
 Church History 307 (2) Biographies of L.D.S. Leaders
 Church History 364 (2) Survey of Christian History to the Thirteenth Century
 Church History 365 (2) Renaissance and Reformation
 Church History 366 (2) Modern Christian History
 Philosophy 308 (3) Survey of Philosophy
 Philosophy 310 (3) Introduction to Logic
 Philosophy 420 (3) Ethics
 Philosophy 424 (3) Problems of Knowledge
 Philosophy 425 (3) Philosophy of Science
 Recreation 387 (2) Planning for Social Recreation
 Recreation 388 (2) Leadership in Church Dances
 Scripture 301, 302, 303 (2-2-2) The Old Testament
 Scripture 304 (2) The Spirit of the Old Testament
 Scripture 311 (2) Israel's Prophets
 Scripture 313 (2) The Life of Christ
 Scripture 314 (2) Paul, the Apostle and Missionary
 Scripture 315 (2) The Early Church and Its Writings
 Scripture 325 (2) The Doctrines of the Book of Mormon
 Scripture 331, 332, 333 (2-2-2) The Doctrine and Covenants
 Scripture 338 (2) The Pearl of Great Price
 Scripture 339 (3) Doctrines of the Pearl of Great Price
 Scripture 524 (2) Analysis of the Book of Mormon
 Theology 301, 302, 303 (2-2-2) The Principles, Doctrines, and Philosophy of the Church of Jesus Christ of Latter-day Saints
 Youth Leadership 377 (2) Scouting in the L.D.S. Church

Six hours of credit in the courses listed below may be applied toward a total of 24 hours of credit in religion as well as applying toward the other groups in which they are listed.

- †Archaeology 310 (3) General Near Eastern and Biblical Archaeology
 †Archaeology 360 (3) Ancient Civilizations of America
 English 350 (3) The Bible as Literature

History 300 (3) Early Oriental History
 History 312 (3) The Renaissance and Reformation
 History 366 (3) Utah

†Human Development and Family Relationships 210 (3) Child Development I
 †Human Development and Family Relationships 412 (3) Principles of Child Guidance
 †Human Development and Family Relationships 440 (3) Family Life in the Middle and Later Years
 †Human Development and Family Relationships 360 (3) Achieving Success in Marriage
 †Human Development and Family Relationships 361 (3) Family Relationships
 Music 301 (2) Elementary Baton Technique and Hymnody
 Music 302 (2) Intermediate Baton Technique and Ward Choir Direction
 Music 383 (2) History of Sacred Music

Major and Minor Requirements

At the time of his graduation, the student must have completed at least thirty quarter hours in his major department and no fewer than twenty hours in collateral or minor subjects which meet the approval of the head of his major department.

When the prospective graduate's high school and college work shows marked evidences of deficiencies and grade of scholarship, in breadth of training or in preparation for a probable future activity, the head of the department, in consultation with the dean, may prescribe certain additional specified courses, according to the needs of the particular student.

Registration of Prospective Secondary Teachers

All certificates for teaching, counseling, supervising, administration, and library work in the public schools of Utah are granted by the State Department of Public Instruction.

When all requirements for state certification have been fulfilled, students of the University who are registered in any of its colleges or in the Graduate School will be recommended for certification by the dean of the College of Education. This recommendation will be given just as readily to prospective secondary teachers who have registered in other colleges as to those who have registered in the College of Education, the dean of the College of Education acting merely in an administrative capacity as the representative of the university. However, all students in the teacher certification program, regardless of their college registration, are required to have an assigned adviser in the College of Education to approve the professional education sequence courses. Assignment of education advisers is made in the Teacher Certification Office.

Most students seeking an elementary certificate register in the College of Education. However, programs are available for majors in Human Development and Family Relationships and Speech Correction to obtain an elementary teaching certificate.

Students who desire state certificates should make application with the dean of the College of Education through the Teacher Certification Office and not with the State Department of Public Instruction.

Scholarship Honors

In recognition of especially meritorious work, scholarship honors are granted to certain members of classes graduating with the bachelor's degree. The announcement of honor awards is made at the annual commencement exercises.

There are two designations in recognition of high scholarship merit: Graduation with High Honors and Graduation with Honors. The award of Graduation with Honors is made on the basis of excellence shown in work up to, but not including, the Spring Quarter of the senior year.

A student receiving either type of scholarship honors must rank among the highest ten per cent in scholarship in the graduating class. Graduation with High Honors will be awarded to the highest three per cent. Graduation with Honors to the next seven per cent. This rating is determined by computing a grade-point average as follows: each credit hour of "A" counts 4; each hour of "B" counts 3; each hour of "C" counts 2; each hour of "D" counts 1; "E" counts 0. The total number of points is computed and is divided by the number of credit hours carried.

It shall be the duty of the committee on graduation to make selection of candidates in accordance with these provisions.

The university will post and publish at the close of each quarter of the regular school year the names of the students who have carried a minimum of 15 credit hours and earned a grade point average in all classes carried of 3.5 or above. Those having grade point averages of 3.5 through 3.7 will be on the Roll of Honor, and those with grade point averages of 3.8 and above will be designated on the Roll of High Honor.

Residence

The term "residence" has been deleted from this catalog since every course given for credit by Brigham Young University, regardless of the place in which the course is conducted, is controlled by the colleges and their respective departments. The credit course taught away from the campus at Provo, Utah, must fulfill the same requirements made of courses taught on the campus at Provo as to teacher qualifications, course content, course sequence, time allotments, examinations and library facilities. For the convenience of those checking B.Y.U. transcripts of credit, the place in which the course is conducted is indicated. However, all credit courses conducted by Brigham Young University with the geographical location so indicated are accepted by the university as equal to the credit earned on the campus at Provo, Utah.

Evaluation of Transfer Credit

Credit earned at accredited institutions in Utah, Ricks College in Idaho, and other such institutions as may later be determined which offer the baccalaureate or associate degrees, will be accepted hour for hour as the equivalent of that earned at B.Y.U. within the physical, biological, and social science groups, and in the humanities and aesthetics group. Students having such credit will be required to take only enough additional credit within each group to reach the total credit hours required for graduation at B.Y.U.

University Fees

(All fees are subject to change without notice.)

General Fees

REGULAR COLLEGE AND GRADUATE STUDENTS:

	Autumn Quarter	Winter Quarter	Spring Quarter	Total
Tuition	\$60.00	\$60.00	\$60.00	\$180.00
Building, gymnasium, student activity and health fees	25.00	25.00	25.00	75.00
	<u>\$85.00</u>	<u>\$85.00</u>	<u>\$85.00</u>	<u>\$255.00</u>

GENERAL FEES ACCORDING TO QUARTER CREDIT HOURS CARRIED BY SPECIAL, REGULAR, OR GRADUATE STUDENTS:

	Tuition	Building Fee	Gymnasium, Student Activity, and Health Fees	Total
Minimum fee	\$15.00	\$ 3.00		\$ 18.00
Three credit hours	20.00	4.00		24.00
Four credit hours	25.00	5.00		30.00
Five credit hours	30.00	6.00		36.00
Six credit hours	35.00	7.00		42.00
Seven credit hours	40.00	8.00		48.00
Eight credit hours	45.00	9.00		54.00
Nine credit hours	50.00	10.00		60.00
Ten or more credit hours	60.00	10.00	15.00	85.00

The charge for auditing courses is the same as for taking them for credit.

PAYMENT OF FEES

A student may pay tuition and fees in full at the time of registration,
or

A student may pay tuition deposit of \$10 and activity fees of \$15, totaling \$25, at the time of registration, then pay the balance of tuition and fees due by the 10th school day of the quarter. (Special students carrying nine (9) hours or less are not required to pay the \$15 activity fee.)

The \$10 tuition deposit is not refundable in the event a student does not complete registration or attend school.

LATE REGISTRATION FEE

Late registration fees will be assessed all regular and part-time students for the following reasons (no exception is made regardless of reason for being late):

- (a) Failure to complete registration on the scheduled dates:

1. First five regular school days following the scheduled registration date \$ 5.00
2. After the fifth day following scheduled registration date 10.00
- (b) Delay in payment of fees.
 1. Failure to pay full tuition and fees by the tenth school day of the quarter 5.00
 2. Failure to pay full tuition and fees by the 15th school day will result in cancellation of a student's registration. The fee for re-instatement of registration is 10.00

Late fees for special students will be assessed at 50% of the rate for regular students.

Students who pay only part of the total tuition and fees will be assessed a late fee if the balance is not paid by the due date.

Any student whose check is dishonored by his bank will be charged the late fee in effect at the time the check is redeemed.

The maximum charge for both late registration and late payment of fees is \$20.

REFUNDS—COLLEGE STUDENTS

In the event of withdrawal either by a regular or by a special student, a refund will be made on the basis of a charge of \$10 plus a per day charge of two per cent of the total tuition and fees paid or payable for the quarter. The days charged for will be the school days beginning with the first day of the quarter on which classes were held following date on which the student registered to the day on which the student reported his withdrawal to the Office of the Dean of Students, both days inclusive.

Any refund due a student because of withdrawal from school will be made only by check, through the mail, two weeks from the date on which the student reported his withdrawal and surrendered his receipt or activity card to the Office of the Dean of Students.

No refund will be granted to a student who is requested to withdraw for scholarship or other causes.

No refunds will be made directly to an unmarried student under twenty-one years of age unless the student has the written permission of his parents or legal guardian.

MISCELLANEOUS GENERAL FEES AND FINES

- | | |
|--|---------|
| Graduation fee, bachelor's degree | \$10.00 |
| Graduation fee, master's degree (includes printing of thesis abstract) | 20.00 |
| Late application for graduation fee (for those who apply after January 15 for June Commencement and after March 15 for August Commencement) | 3.00 |
| Registration for graduation fee (for those not previously registered in the year in which graduated) | 2.50 |
| Late orientation fee (charged all freshman and sophomore students registering at the university for the first time who do not report to the campus at indicated time on the officially scheduled day for placement tests and orientation work preliminary to registration day) | 3.00 |

Identification Photo .....	.50
Change of registration fee, for each change slip presented after the first week of each quarter	1.00
Examination, special equivalency, per credit hour (the maximum fee in any one subject shall not exceed \$40)	5.00
Duplicate activity card	1.00
Automobile registration and parking fee:	
Beginning of school year	5.00
Beginning of Winter Quarter	4.00
Beginning of Spring Quarter	2.00
Traffic violation fines	1.00 to 5.00
Thesis binding (4 copies)	11.00 to 13.00
Registration in Evening School. (All daytime students will be required to pay an additional fee of \$2 per credit hour for all hours carried under the Evening School Program.)	

FEES FOR INSTRUCTION IN MUSIC

(10 Lessons per Quarter)

Ballou, Richard	\$30.00	Hanson, William F.	25.00
Bos, Jacob	30.00	Keeler, J. J.	35.00
Bradley, Adine	40.00	Laycock, Harold	35.00
Bradshaw, Merrill	30.00	Laycock, Ralph	35.00
Brownlee, Robert	35.00	Madsen, Florence J.	35.00
Buggert, Gustav	25.00	Madsen, Franklin	30.00
Cannon, Clawson	35.00	Mathews, Arminta	30.00
Curtis, Brandt	35.00	Martino, Daniel	40.00
Cheney, Ina Lou	30.00	McAllister, J. W.	30.00
Cundick, Robert M.	35.00	Nelson, Elmer E.	35.00
de Jong, Gerrit, Jr.	45.00	Nibley, Richard	40.00
Earl, Don	35.00	Nordgren, Quentin	30.00
Edlefsen, Blaine	30.00	Sardoni, Lawrence	35.00
Fuerstner, Carl	50.00	Terry, Elvis B.	30.00
Fitzroy, George W.	30.00	Wakefield, Homer	30.00
Gates, Crawford	40.00	Weight, Newell	35.00
Gulbrandsen, Norman	35.00	Weinzinger, Kurt	35.00
Halliday, John R.	45.00	Woodward, Margaret	30.00
		Woodward, Ralph	35.00

FEES FOR PRIVATE INSTRUCTION IN SPEECH

(10 lessons per quarter)

Bateman, LaVar	\$25.00	McKinlay, Lynn A.	25.00
Clinger, Morris M.	25.00	Mecham, Merlin J.	25.00
Gledhill, Preston	25.00	Morley, Alonzo J.	25.00
Hansen, Harold I. (12 lessons)	30.00	Pardoe, Kathryn B. (12 lessons)	30.00
Jex, Lorin	25.00	Rich, Owen S.	25.00
		Woodbury, Lael J.	25.00

FEES FOR SPEECH CLINIC

An out-patient fee of \$25.00 per quarter is charged for rehabilitation service in the speech clinic. Such service is offered regularly enrolled students without any charge.

FEES FOR DEPARTMENTAL FACILITIES AND SERVICES

English 10 (Preparatory English of sub-college level)	\$10.00
English 15 (Remedial English for juniors)	15.00
Food and Nutrition 240, 340 (Menu Planning—Meal Service)	3.00
Health Education 110 (Driver Education)	5.00
Horticulture 112 (Flower Arrangement)	5.00
Human Development and Family Relationships 322	3.00
Human Development and Family Relationships 422	6.00
Instruction (Elementary) 345, 448, 449	15.00
Instruction (Secondary) 377, 478, 479	15.00
Nursing 211, 212 (Fundamentals Laboratory)	1.50
Physical Education 131, 132 (Golf)	7.50
Physical Education 135, 136 (Skiing)	10.00
Physical Education 137 (Outdoor Experience through Organized Hiking)	5.00
Physical Education 160, 161 (Swimming)	10.00
Physical Education 164 (Life Saving)	10.00
Physical Education 165 (Water Safety Instruction)	10.00
Physical Education 166 (Canoeing)	7.50
Physical Education (Men) 222 (Skills and Techniques)	6.00
Recreation 121 (Bowling)	8.00
Recreation 123 (Skills and Techniques for Outdoor Recreation)	12.00
Recreation 137 (Outdoor Experience through Organized Hiking)	5.00
Recreation 138 (Outing Activities)	5.00

RENTALS

Woodwind, brass, and string instrument rental per instrument per quarter \$	8.00
Harp, harpsichord, organ rental, one hour each day, per quarter	10.00
Piano rental, one hour each day, per quarter	5.00
Each additional hour per day, per quarter	4.00
Practice room without a piano, one hour each day, per quarter	3.00
Each additional hour per day per quarter	2.00

Locker rent (McKay Building and Eyring Science Center):

1 quarter	1.00
3 quarters	2.50
4 quarters	3.00
Key deposit	1.00
Replacement of lost key	1.00
Locker rent (for high school students, Education Bldg.), school year	1.50

Fifty cents is returnable on return of key. If students share a locker there is an additional 50c for each additional key issued. The 50c for each such key is refunded on return of key.

DEPOSITS

Gymnasium towel check and padlock deposit (Maximum refund is \$2.50) .. \$	3.00
Botany 175 (Microtechniques)	2.00
Botany 550 (Plant Physiology)	2.00
Botany 706 (Experimental Ecology)	2.00
Botany 712 (Plant Nutrition)	2.00

Industrial Education	1.00
Chemistry (each laboratory class)	1.00
Civil Engineering 202, 203, 204	1.00
Air Science (All AFROTC students) (Fifty cents will be retained for flight insurance.)	14.00

Fees for Laboratory Schools

SECONDARY SCHOOLS

Senior high school—10th, 11th, and 12th grades	\$30.00
Junior high school—7th, 8th, 9th grades	20.00
Special students in secondary laboratory school, per unit	7.50

Secondary laboratory school students who register any time during the first semester shall pay the full year's fees. Those who register the second semester in the junior high school shall pay \$11.00 and in the senior high school \$17.00, which amounts include the late fees.

A high school student authorized to register for college courses shall pay in addition to the high school fees \$4.00 per credit hour, but the maximum charge for the high school and college courses shall not exceed that charged a college student for the same period.

ELEMENTARY SCHOOL

Kindergarten to the sixth grade, for the full year	\$15.00
--	---------

Elementary laboratory school students who register any time during the first semester shall pay the full year's fee. Those who register during the second semester shall pay \$8.50, which includes the late fee.

LATE FEE IN LABORATORY SCHOOLS

A late fee of \$2.00 will be charged all junior and senior high school students who register after the first week.

A late fee of \$1.00 will be charged all elementary training school students who register after the first week.

Refunds—Laboratory Schools

A refund of \$25.00 will be made to any senior high school student who withdraws during the first or second week of the first semester. A refund of \$15.00 will be made to any student who withdraws after the second week and on or before the end of the first semester, but no refund will be made thereafter.

A refund of \$15.00 will be made to any junior high school student who withdraws during the first or second week of the first semester. A refund of \$10.00 will be made to any student who withdraws after the second week and on or before the end of the first semester, but no refund will be made thereafter.

A refund of \$5.00 will be made to any elementary training school student who withdraws before the beginning of the Christmas holidays, but no refund thereafter.

No refund will be granted to a student who is requested to withdraw for scholarship or other cause.

The activity or receipt card must be surrendered when a refund is received.

COLLEGE OF FAMILY LIVING NURSERY SCHOOL

Fee per child, per quarter \$20.00

Estimated Cost of Attending B.Y.U. For Three Quarters, 1959-60

The expense of a year's study at Brigham Young University is surprisingly reasonable. It will depend a great deal on how much a student can or wants to spend. Basic minimum costs for a three-quarter school year are:

Tuition	\$180.00
Building, student activity, health and gymnasium fees—	
\$25 per quarter	75.00
Books and supplies	60.00
Board and room	540.00
Personal expenses	100.00
	\$955.00

A recent nationwide study of the costs per year for tuition, board and room, and fees at private colleges indicates average spending of \$1,485 per student. This amount, which does not include personal expenses, is approximately fifty per cent above comparable costs at B.Y.U.

The estimate of \$955 does not provide for an automobile or clothing or transportation from distant points. The cost will obviously vary with married or single students and with young men or young women. For those doing their own house keeping, either on or off campus, the cost of board and room can be materially reduced. Some students without automobiles have spent for an entire year as little as \$750. Others with automobiles have spent as much as \$1,500. Except for those who travel back and forth to their homes each day, an automobile is unnecessary and often a hindrance to proper study.

Student Personnel Services

The Student Personnel Services offices are responsible for the welfare of students in the following areas of university life:

Academic Standards
Counseling Service
Financial Aids
Foreign Students
Health Services
Indian Students
Information Center
Orientation

Scheduling
Scholarships, Fellowships and Academic Grants
Security and Traffic
Student Employment and Placement
Student Housing
Student Organizations and Social Life
Student Publications
Women's Activities

Dean of Students

The Dean of Students is Director of the Student Personnel Services. As such, he is expected to coordinate the agencies at work on student problems. He initiates and recommends to the president and the University Council needed policies and procedures in student life. It is his responsibility to administer the program recommended or approved by the president in the various areas of the Student Personnel Services.

Counseling Service

The administrative officers at Brigham Young University are well aware that new students are faced with many problems as they begin their college life. The primary function of the Counseling Service is to help normal students to make realistic decisions regarding their college careers. All entering students are expected to make an appointment with a counselor so that they may avail themselves of professional assistance. The Counseling Service provides the following services for the university: (1) counseling—educational, vocational, and other personal problems, (2) psychiatric, (3) testing, (4) occupational information, and (5) help with study and reading skills. The Counseling Service also coordinates the University Tutoring Program.

The counselors offer assistance to each individual student, helping him to make wise decisions in connection with educational, vocational, and personal problems. The mature student will accept responsibility for the decisions arrived at in such counseling sessions.

Limited psychiatric service is available for students with serious emotional problems. A psychiatric team composed of a psychiatrist, clinical psychologist, and a psychiatric social worker is available to make evaluations and recommendations concerning treatment. Limited psychiatric treatment is available for students who can be treated in a university setting. Such treatment is not available for all students, and referrals are often made to private agencies either in Utah or in the students' home towns. As in the case of all other counseling done in the Counseling Service, complete confidentiality is maintained.

Tests of achievement, ability, interest, and adjustment are given to all new lower division students. The data from these tests are used as a basis for counseling in educational, occupational, and personal problems. Although the basic tests are given to all new lower division students, upper division and graduate students may avail themselves of the tests. The testing service provides psychological test data for the use of counselors and registration advisers, placement

tests for various academic groups at the university, and assistance in the preparation, administration, and scoring of subject-matter tests as requested by various departments in the university.

A comprehensive, current collection of essential occupational information is maintained in the Counseling Service Library. Current catalogs of the major universities and technical schools are also on file. These materials are available to all students seeking information about particular vocational opportunities or information about employment in general.

A study skills laboratory is maintained for use of all students for the improvement of their study habits. Remedial reading groups are formed each quarter to give assistance to students who have difficulty reading college materials. Emphasis in the reading groups is placed on improving the student's general reading ability, not on speed alone. Application for membership in these groups is initiated by contacting the Counseling Service receptionist. Reading materials and equipment are also available to help the student increase his ability to read.

Counselor for Women

Of special assistance to women students is a counselor for women. She is a member of the Student Personnel Services staff, the Committee on Women's Affairs, and the Counseling Service staff. The counselor for women is available throughout each day to assist women students in solving personal problems.

Foreign Students Adviser

Services of the foreign students adviser are available to all students from countries outside of the United States. All alien students are expected to clear with him. Foreign students coming to the university should report first to Room 216, Temporary Office Building No. 2, the office of the adviser to foreign students.

Veterans' Benefits

Veterans transferring their G. I. benefits from other schools to B.Y.U. must bring a certificate of eligibility restricted to B.Y.U. This must be obtained by application to the last school attended. New veterans must make an application for eligibility. War orphan veterans should apply at the Veterans' Administration Office in their home state. Veterans of the Korean War may make their first application upon their arrival at the university by presenting their discharge form, DD-214. Veterans of the Korean War must begin use of their G. I. benefits within three years of their date of discharge. After this date they cannot suspend training for a full calendar year at any one time without receiving special clearance. Inquiries should be directed to the veterans' coordinator, Brigham Young University, Provo, Utah.

Scholarships, Awards, and Financial Aids

The university awards annually to undergraduate students scholarships covering from one to three quarters' tuition each, granted on the basis of outstanding academic ability or demonstrated academic ability and outstanding ability in the areas of speech, drama, music, art, and other subjects. Tournament and contest winners frequently receive these awards.

The university awards grants-in-aid to deserving students of good academic ability who have critical economic need. A considerable number of loans are made to worthy and needy students. These are available to all students on the basis of their qualifications and need for financial assistance.

Scholarships and grants-in-aid are applied toward the payment of tuition or fees. Any scholarship or grant-in-aid may be withdrawn at any time for academic or other good and sufficient reasons if, in the judgment of the selecting committee, the recipient has clearly demonstrated his failure to comply with both the spirit and the letter of the original terms of the scholarship or grant-in-aid.

The university also awards grants-in-aid to selected student-athletes who can qualify under the rules and regulations of the Mountain States Athletic Conference. To be eligible for an athletic grant-in-aid, which may include part or all of a student's commonly accepted educational expenses as defined by the N.C.A.A., a student-athlete must meet either of the following requirements:

1. If a freshman, he must have been rated academically as in the upper two-thirds of his high school graduating class. For the first year, such award shall be made for the entire school year.
2. If not a freshman, the student must be in good academic standing and not on probation. Such award shall be made on a quarterly basis.

Graduate students also are eligible for scholarships, fellowships, and grants. For further information see the Graduate Catalog.

All scholarships, fellowships, assistantships, and academic grants are under the jurisdiction of a central committee which alone has the authority to promise or grant an award. All applications for these recognitions should be made to the chairman of the Committee of Scholarships and Awards.

Discipline

The maintenance of standards of honor and integrity, of graciousness in personal behavior, of Christian ideals in everyday living, of a high standard of morality, and of abstinence from alcohol and tobacco is required of every student. A student's having improper associates or visiting places of questionable repute will not be tolerated.

Any pronouncement of disciplinary measures made by the president of the university becomes a part of these regulations. Violations of regulations may make the offender liable to suspension or expulsion from the university.

Academic Standards

Students of Brigham Young University are required to attain the following minimum grade-point average for their particular class in school:

First Quarter Freshmen (0-18 hours accumulated credit prior to the beginning of the current academic quarter): 1.50.

Other Freshmen and Sophomores (19-93 quarter hours): 1.75.

Juniors, Seniors and Graduates (more than 94 quarter hours): 2.00.

Grade-point averages are computed on the basis of A equals 4, B equals 3, C equals 2, D equals 1, and E, WE, UW each equal 0.

Low scholarship may place a student in one of the following categories:

1. Students failing to maintain the cumulative minimum grade-point average for their class are placed on academic warning.
2. Students on academic warning who fail to attain the minimum average for their class during any quarter they are on academic warning are placed on academic probation and are limited as follows:
 - a. Allowed to enroll only for a maximum of 14 hours.
 - b. Not eligible for any scholarships, grants-in-aid or student loans.
 - c. Restrained from participating in any activity such as student plays, musical programs off-campus, inter-collegiate athletics, debate teams,

cheer leaders, studentbody officers, etc. in which they represent BYU before the public.

3. Students on academic probation who fail to attain the minimum grade-point average for their class are suspended from the university for low scholarship.
4. Students who fail to attain a 1.00 (D) grade-point average for a particular quarter, who are in good standing, are placed upon academic probation. Those who are on probation or academic warning at the time they receive less than a 1.00 average are suspended from the university for low scholarship.
5. Students admitted to the university on probation and those students re-admitted either on probation or academic warning shall be subject to the same rules as the students on academic probation listed in No. 2 above.

Placement Bureau

The Placement Bureau, located in the east end of the Herald R. Clark Student Service Center, exists on the campus for the purpose of assisting graduating students and alumni to find desirable positions in their fields in business, industry, government, and education. This office works in close cooperation with deans and department chairmen.

The placement service includes a placement library where interested students may find books, articles, magazines, and brochures that will acquaint them with companies in which they may be interested and also books and pamphlets which will give advice on such matters as how to conduct oneself in an interview, how to write effective letters of application, how to find employment, etc.

All students are urged to register with the Placement Bureau early in the school year in which they will graduate so that that office may prepare early to give the most effective possible assistance in finding employment for each graduate.

Student Employment

In the Placement Bureau assistance is given to students in finding part-time employment. This includes help not only in placing students in positions on the university campus but also in finding part-time employment off campus and in finding work for board and room.

Students are encouraged not to attempt to earn their entire way through school. Such a program leaves little time for academic work (see scholarships). It is important to note that there is a maximum limit on the number of hours which a student may work on campus.

Students are urged to register with the Placement Bureau as soon as possible after they arrive in Provo and are available for work. Factors which weigh most heavily in deciding who shall receive leads for jobs are need, hours available, and possession of skills required by employers. Inasmuch as the number of students seeking part-time work is very high, those whose need is great are requested to report regularly at the Placement Bureau after filing their initial applications.

Students from foreign countries are required to obtain a work permit before they may take employment. Such students may receive assistance in obtaining the necessary permit from the foreign students adviser. Students under eighteen who succeed in locating employment are required to obtain a work permit. Instructions concerning this are available in the Placement Bureau.

Student Health Service

The Howard S. McDonald Student Health Center on University Hill accommodates the health services, comprised of a large out-patient clinic and a small in-patient unit for cases requiring bed care. The center functions 24 hours daily, 7 days a week during school terms and is available to any regularly enrolled full-time or part-time student whose fees include these services for the quarter in which he is registered. Summer students are included. Medical care to all eligible students is limited to the facilities and personnel in the health center.

The following services are provided without extra charge:

1. An initial complete physical examination, required of all entering students, to be performed at the health center and to include screening chest X-ray, audiometry and urinalysis. This examination is also mandatory for students re-entering after a two-year absence.
2. Consultation with general physicians and specialists, by appointment, in the health center during regular clinic hours, 8:30 a.m. to 4:30 p.m. This includes a specialty clinic in orthopedics, general surgery, gynecology, internal medicine, and chiropody.
3. First aid treatment any time during the twenty-four hours of each day.
4. Immunizations as required for smallpox, diphtheria, or typhoid.
5. Physical therapy as recommended by a health center physician.
6. Routine laboratory tests.
7. Seven days of bed care in any one quarter in the health center, as recommended by a health center physician, after which a minimum charge of \$2.50 per day will be made. This includes post-surgical convalescence, the private physician continuing in attendance.
8. Immediate notification of parents or guardian by the health center when a student is taken acutely ill.
9. Certain procedures of public health importance, such as tuberculin tests, follow-up studies in infectious diseases, etc.
10. Within the limits of its personnel and facilities, and at the discretion of the director, the treatment of chronic disease suffered by students.

Some services require an addition charge and are supplied to the student at cost. These are:

1. Meals while a patient is in the center.
2. Drugs on prescription of a health center physician.
3. Special diagnostic laboratory tests.
4. Special immunizations, i.e. Poliomyelitis, influenza, etc.
5. X-rays other than "screening" films. The health center regularly employs the technical personnel to take and interpret the X-ray films. The student pays only the cost of materials.
6. After-hour calls by a physician either in the clinic or at home. The student pays \$2.00, the health center \$3.00 for each call.
7. Rental of crutches.

Services not available:

1. Major surgery or off-campus hospitalization, except in instances where an injury is sustained while the student is representing the university through official assignment.
2. Dental service.
3. Obstetric services.
4. Eye refractions, glasses, prostheses, hearing aids, etc.
5. Ambulance service.

STUDENT BLUE CROSS-BLUE SHIELD PROGRAM

To complement the services of the Student Health Center, Blue Cross-Blue Shield Hospital, Medical and Surgical protection is now available to all full time students on a quarterly basis. This voluntary program is fully endorsed by the university and provides for a wide range of medical services at minimal costs. All students not otherwise protected by a health insurance plan are urged to accept this excellent plan specifically designed for our students. Full details are available from the Health Center.

Program and Personnel for Student Housing

The directors of Program and Personnel for men's and women's housing are responsible for the social, spiritual, cultural, and educational aspects of housing. They are responsible for the initiation and coordination of the residence hall program in cooperation with the other departments of the school and for the supervision of the head and senior residents. They are available for general counseling on residence hall and other problems which students must solve in the school process. Roommate requests should be made through the directors.

Each campus residence is under the supervision of a competent head resident, a head resident couple, or a senior resident generally responsible for the students' personal welfare and for implementing the residence program. Among other things, the residence program provides experience in democratic self-government, acceptance of responsibilities that go with maturity and independence, assistance in learning the arts and science of human relationships and of working and living with others. It assists the student to achieve a sense of belonging and to develop social competence through a social and recreational program. Head residents give general counseling to students in cooperation with academic and other personal services. In addition, students in Heritage Halls may receive help in the home-making experience of budgeting, buying, meal planning, and care and selection of clothes through the services of specialists assigned to that area.

The directors of Program and Personnel are responsible also for a program designed to assist students living off campus to make their housing experience more meaningful. They are available for counseling in special problems related to off-campus housing.

For information on types of accommodations, rates, and food service, see Auxiliary Services Section.

Security and Traffic

The Security Office is a protective agency for students, faculty and staff. Any questions concerning security or requiring police action should be referred here.

This office also maintains a lost and found service. Items of value found on campus should be deposited here at once. Unclaimed property will be held six months only.

A major responsibility of the Security Office is the directing of campus traffic and parking. Students, faculty, and staff are required to register their motor vehicles at the time of registration or employment at the university. Any change in ownership or registration must be reported to the Security Office within forty-eight hours. All vehicles must display a registration or parking permit. Vehicles parked on campus between 7:00 a.m. and 5:00 p.m. when school is in session must display a parking permit. Student parking fee is \$5.00 per year.

Student Organizations

Student activities are organized in such a way as to offer maximum opportunity for training in leadership and self-government and to provide a well-balanced program of individual and group development. Numerous student organizations have been set up to realize effectively such an objective. All student organizations on the campus conduct their affairs in accordance with a basic philosophy designed "to provide for a broad program of social, cultural, and recreational opportunities in which students are encouraged to participate." Membership is open to students who qualify and remain qualified according to the rules and regulations set up by each organization. All students are urged to become affiliated with some group and thereby derive the benefits that only

group experiences can bring. In order to coordinate organizational activity, to eliminate duplication of effort, and to lend continuity from year to year, supervision of student organizations is provided by the Dean of Students through the office of the Coordinator of Student Organizations.

Associated Students. This organization is composed of all students who attend Brigham Young University and is presided over by officers elected by them. It seeks to develop interest on the part of every student in those activities which contribute to a more democratic "Y" spirit and to provide opportunities for all students to participate in a well-rounded program of out-of-class activities. **However, no student is allowed to participate in out-of-class activity if he is either on academic or disciplinary probation or carrying less than a ten-hour academic class load.** Through this organization, student traditions are kept alive and all interclass and intercollegiate activities are encouraged and unified. Social, forensic, dramatic, and musical activities are fostered under its management, and through it the students publish the *Daily Universe*, the *Wye Magazine*, the student directory, and the *Banyan*. The organization also functions as an auxiliary of university discipline through the activities of the Honor Council and the Inter-Organization Council court system.

Associated Men. All men students registered are members of the Associated Men. This organization is designed to promote specific interests of "Y" men and to foster a wholesome atmosphere on the campus. The Executive Council, consisting of three student leaders and a faculty counselor, supplemented by the twelve members of the "Y" Men's Council, forms the governing group.

Associated Women. This is an organization comprising all women registered in the university. Its purpose is to aid and foster all women's activities. The organization, advised by the counselor for women, is a member of the Western Division of the National Organization of Associated Women Students, which includes most of the universities and colleges in the United States.

Class Organizations. Members of the four classes and the Graduate School are organized for the purpose of developing common interests and class spirit as the class proceeds through the university and into the Alumni Association. Meetings of the classes are held periodically with a limited number of social functions planned by class officers.

Executive Council. This council consists of the president, vice-president of social activities, vice-president of student relations, vice-president of cultural activities, and vice-president of finance.

Student Senate. This is a legislative body consisting of representatives from the entire student body and representatives from the classes. The senate considers student body problems and initiates action for the welfare of the student body.

Inter-Organization Council. This is an organization composed of representatives from student organizations to help govern organization activities. It derives its authority from the Executive Council.

Honor Council. This is a group of sixteen students appointed by the student senate and functioning as a counseling body with sub-committees to promote the honor system, to which all students are expected to adhere.

Student Publications

Under the supervision of the Student Publications Committee, composed of both student and faculty representatives, four publications are sponsored in order to serve the university and its students and to give opportunities for student expression and development through publications activities.

Newspaper. The Brigham Young *Daily Universe* is published daily during Autumn, Winter, and Spring Quarters and semi-weekly during the Summer Quar-

ter. Opportunity is given students for valuable experience in news writing, editing, photography, photo-engraving, and advertising.

Yearbook. Named for the oriental tree which symbolizes the widening friendships formed on the campus, the **Banyan** is the students' photographic and artistic record of each year's activities. Portraits of all students and faculty members are included without charge to the individuals.

Magazine. The **Wye**, published quarterly, contains student-written poetry, stories, and non-fiction. Several awards are given for the best art work, photography, and writing published.

Directory. An annual directory of Brigham Young University students and faculty is published in the Autumn Quarter. Compilation of the directory material and sale of copies are sponsored by White Key, women's honorary service organization.

Professional and Departmental Organizations

The university encourages organizations which have the specific purpose of bringing together persons of similar scholastic and professional interests and of rendering their work more pleasurable and profitable. Each group fosters the activities of the department to which it is allied. Eligibility requirements are those of departmental affiliation and general scholarship as determined by the individual organizations. Fees are reduced to a minimum. Each organization has a faculty sponsor.

Service Organizations

There are on campus several organizations, the primary function of which is to render service to the university. Some of these are for men and some for women. Eligibility requirements are established by each organization and each has a faculty sponsor.

Social Units

Within the program of student organization, provision is made for men's and women's social units. Activities in these organizations are provided in accordance with the basic philosophy of student organizations and are established on the basis of common social interests, friendship, congeniality, and cooperativeness. These organizations furnish numerous opportunities for student participation both individually and in groups. The competitive spirit is fostered in such activities as the Homecoming Parade, the Song Fest, and the Snow Carnival.

Geographical Organizations

Geographical clubs are organized to further social enjoyment and acquaintance among students from the same localities. They are particularly helpful to students during the early quarters of school, before these students have found their way into the other social activities of the campus. Such clubs are also helpful in maintaining a close bond of interest between the student and his home.

Non-Student Organizations

B.Y.U. Women. The purpose of this organization is to foster the ideals of the institution and to help furnish recreation and social amusement for the faculty. A woman is eligible for membership in this organization and becomes a member on payment of dues provided that at the time she seeks admission she is either (1) a present faculty member (A faculty member is one who holds at least the rank of instructor.), (2) a past faculty member, (3) a matron, (4) a

board member, (5) the wife of a faculty member who has died in the service of the school, (6) the wife of a present faculty or board member.

The Society of the Sigma Xi. This is a national organization devoted to the encouragement of research in pure and applied science. The local unit is known as the Brigham Young University Chapter.

Members of the Society of the Sigma Xi on the staff at Brigham Young University organized a Sigma Xi club in 1935. Since that time it has remained continuously intact, encouraging research and other activities in the various branches of science. A petition for chapter standing was submitted by the local club in 1949. A chapter was granted by the National Society of the Sigma Xi. Formal installation took place October 17, 1950.

Specific local projects include the sponsoring of national Sigma Xi appointed lecturer, the promotion of several lectures by prominent scientists within the unit and from nearby institutions, an annual Sigma Xi lecture by a member of the chapter, the awarding of an annual medal to an outstanding student for the completion of a research project, and the direction of possible sources of research funds in the interest of pure and applied science.

Religious Opportunities

Brigham Young University students have excellent opportunities for participation in religious activities. Among the means available are the following:

Brigham Young University Stake. This stake of twenty-four wards, organized specifically for students, provides maximum opportunity for active participation in the program of the Church. Spiritual growth and the development of a strong testimony are goals fostered by the stake organization, whose program is closely integrated at all levels with that of the university.

All single students living away from home establish their membership records in one of the wards of the stake. Married students who attend the university may elect to have their membership records either in a ward of the B.Y.U. Stake or in a nearby ward in which they reside. Membership records of students remain in the B.Y.U. Stake until they terminate their schooling at the "Y."

Religious Organizations. In addition to the twenty-four wards on campus, there are several organizations which are primarily religious in nature but which are also social and service groups. Membership in some of these organizations is limited to returned missionaries while others are open to any interested student.

Devotional Assemblies. Devotional assemblies, held each Wednesday, enable students to hear messages of spiritual power and depth from carefully chosen church leaders. It is contemplated that during each year all members of the First Presidency and of the Quorum of The Twelve Apostles will address the student body in the Wednesday devotional assemblies.

Student Assemblies

Throughout the academic year a student assembly is held each Friday at 10:00 a.m. as a part of the regular program of the university. The Friday hour set aside for outstanding student entertainment is an important part of student life and should likewise be a definite part of the student's schedule.

Lyceums and Forums

Almost since its founding Brigham Young University has been bringing to its students distinguished men and women in arts and letters. The Lyceums are evening programs of cultural value. Forum assemblies, held each Monday morning, feature speakers and artists who can offer students a better understanding of our contemporary civilization. During the 1958 Summer Quarter and the 1958-59 season, the following have appeared or are scheduled to appear on the Lyceum or the Forum series:

Jacques Abram	Pianist
Diran Akmajian (summer)	Tenor
Frank Asper	Organist
Augustana Choir, Henry Veld, conductor	
Paul Behm (summer)	Clinic Band Conductor
Jorge Bolet	Pianist
Richard Bolling, M.C. (Missouri)	Lecturer
Lorraine Bowman (summer)	Clinic Choral Conductor
William Clauson	Balladeer
Nadine Conner	Metropolitan Opera Soprano
Norman Cousins	Author, Editor
Senator Everett Dirksen (Illinois)	Lecturer
Henry Aldous Dixon, M.C. (Utah)	Lecturer
James T. Farrell	Novelist, Critic
Ferranti and Teicher	Duo Pianists
Austin E. Fife (summer)	Lecturer
John Fostini	Actor, Author, Director
Carl Fuerstner (summer)	Pianist
Morris Goldstein	Jewish Rabbi
Felix Greene	Lecturer
Joel H. Hildebrand	Author, Scientist
Anna Julia Hoyt (summer)	Mezzo Soprano
E. Kent Kane	Lecturer
James B. Kelley	Atomic Scientist
Stan Kenton and his Orchestra	
Howard E. Kershner	Lecturer
Robert Klotman (summer)	Clinic Orchestra Conductor
I. M. Levitt	Astronomer
F. C. Lindvall	Scientist
Shane MacCarthy	Lecturer
Effie Mona Mack, 2 lectures	Historian, Lecturer
Nila Magidoff	Lecturer
Mantovani and his New Music	String Orchestra
George Mardikian	Lecturer
Johanna Martzy	Violinist
James Mason (summer)	Clinic Band Conductor
William Mathis (summer)	Clinic Band Conductor
Norman Nadel	Theater Critic
National Symphony Orchestra of Mexico	
Richard M. Nixon	Vice President of the United States
Alton Ochsner, M.D.	Lecturer
Harry A. and Bonaro Overstreet (summer)	Lecturers
Paganini Quartet (summer) 10 concerts; Henri Temianka, Charles Libove, Charles Foidart, Lucien Laporte	
C. Northcote Parkinson	Lecturer
Parrenin Quartet, 2 concerts; Jacques Parrenin, Marcel Charpentier, Michael Walés, Pierre Penassou	
N. A. Pederson (summer)	Lecturer
Jan and Beta Popper (summer)	Pianist and Soprano
Carl Sandburg	Author, Poet
Daniel Schorr	Foreign Correspondent
Brig. General Robert L. Scott, Jr.	Author, Lecturer
Donald Sloan	Lecturer
Senator George Smathers (Florida)	Lecturer
Robert Aura Smith	Author, Lecturer
T. V. Smith	Author, Philosopher
Utah Symphony Orchestra, 2 concerts	
George E. Waln (summer)	Clarinetist
Senator Arthur V. Watkins, Candidates Frank E. Moss and J. Bracken Lee	Debate

Alumni Association

The Brigham Young University Alumni Association was organized in 1893 to "promote the general welfare of Brigham Young University."

During the sixty-four years of its existence, it has assisted the university in many ways: the Maeser Memorial Building was built with funds from alumni; part of the property on which the upper campus now stands was obtained by the Alumni Association and turned over to the university, and eighty additional acres were purchased by the Church at the suggestion of alumni leaders; a permanent endowment fund was established in 1929 which now exceeds \$31,000; the Student Union Building fund, started during World War II, now exceeds \$90,000 and has grown primarily from contributions of Alumni; the fieldhouse fund drive was supported by the Alumni Association; funds in cash have been turned over to the university at various times for unrestricted use; and the alumni have played a vital part in stimulating interest in Brigham Young University through contacts with prospective students, etc.

Alumni of the university are located in all forty-nine states, four United States territories and possessions, and twenty-seven foreign countries. Stake and mission presidents of the Church appoint alumni in their respective stakes and missions to serve as B.Y.U. coordinators, and these coordinators organize and conduct alumni activities in their areas. These coordinators are also members of the Alumni Council, governing board of the Alumni Association. The Alumni Council meets twice each year, during the weeks of April and October L.D.S. general conferences. Routine matters of the association are handled by an eighteen-member executive committee, headed by a president, two vice-presidents, a treasurer, the president of the Emeritus Club (composed of alumni who were at the university fifty or more years ago), and a full-time executive secretary. Members of the Executive Committee are selected each year to serve terms of three years. Members of the Executive Committee are also members of the Alumni Council.

Anyone who has attended the university for one quarter or more is a member of the Alumni Association. There are no annual dues or membership drives, except that the Alumni Association solicits contributions for the Brigham Young University Fund. All contributions to this fund are tax-deductible and entitle the donor to receive publications of the university and the Alumni Association, including the *Alumnus Magazine*, which is issued bi-monthly except during the summer.

Homecoming, in the fall, and Alumni Day, during Commencement Week, are the two major events of the year on campus for alumni. Periodic reunions of all graduating classes are held on these two days. Meetings are also held throughout the country by alumni living in local areas.

The Alumni Association maintains permanent records of all former students of the university and a full-time office staff on the campus. If the current address or other information is needed about a former student, correspondence should be addressed to the Alumni Office. Alumni visiting the campus are invited to visit the Alumni Office and to make it their headquarters while in the area.

The Alumni Association is a member of the American Alumni Council, an organization composed of alumni associations of all the major universities and colleges in the United States, Canada, and Mexico.

Brigham Young University Destiny Fund

On November 4, 1957, the First Presidency announced the establishment of a long-range gift development program to be known as the Brigham Young University Destiny Fund. The objective of this program is first to raise \$5,000,000 from the people most closely associated with the university—students, faculty and

staff, alumni, and friends, both in and out of the Church. With this tangible evidence of loyalty, the program will then be extended to corporations, foundations and other sources. President Noble Waite of the South Los Angeles Stake was appointed as Assistant to the President in Charge of Campus Development and is directing the progress of the Destiny Fund.

Auxiliary Services

The university has a number of business units which operate as part of the services provided for students and faculty. As a matter of general policy, these business units operate on a self-sustaining basis. They include functions such as housing, feeding, printing, motion picture production, purchasing, warehousing, receiving, mail service, creamery products, laundering, book store, and farm management.

Student Housing

It is not advisable for students to arrive in Provo before the date of the opening of the residence halls. The halls open September 19, two days before freshman orientation. Temporary accommodations in the city are crowded and unsatisfactory, and it is unwise for students to live in hotels and motels where there is no university supervision. Students coming before September 19, expecting to have a place to stay, are disappointed when they have to make temporary arrangements, for this involves a double move of their belongings.

Listings are available for all university approved off-campus housing accommodations and a place can be found in a comparatively short time for students who do not have campus housing accommodations. Very little time is required for a student to unpack and get settled, whether it be on or off campus.

All students at the university are required, as a condition of enrollment, to live in university-approved housing, whether it be on or off campus. The Office of Student Housing, established to assist students with their housing needs, is located in the Herald R. Clark Student Service Center. All inquiries or administrative problems relating to housing needs should be referred to this office. Any change of address also should be reported to this office at once.

HOUSING RENTAL AGREEMENTS

Students planning to live either in campus housing or in off-campus housing may expect to sign a rental agreement for the accommodations they will occupy. Students should be prepared to live by the terms of these agreements once they have signed them. Many misunderstandings and financial losses can be avoided by students if they will read and familiarize themselves with the terms of the agreement before signing.

A word of caution: Housing is such an important part of the total experience of the student at the university that he should give thoughtful consideration to the type of housing desired before he enters into the rental agreement. Further, to avoid discomfiture and possible loss of money, each student should be sure that the accommodations under consideration have been approved by the university.

Campus Housing

APPLICATIONS

Students who enroll at the university and who wish to live in university residence halls should make inquiry at the earliest possible date to the Office of Student Housing. A housing application form will be forwarded to each inquiring student. A \$10.00 application fee should be enclosed with the completed application form when it is returned to the Office of Student Housing. Residence hall assignments and appropriate "agreement forms" are prepared on a basis of the date of receipt of the application form by the Housing Office.

ACCEPTANCE

The validating of any campus housing reservation is contingent upon the student's official acceptance and admission to the university.

RESIDENCE HALLS FOR WOMEN

Housing for 1,539 women is provided in 24 Heritage Halls. These are apartment-type buildings. Each apartment consists of a combination kitchen-dining-study room arrangement, three bedrooms, and a bath. In addition, there are large living rooms, a recreation room, and laundry and storage facilities in each building. Six girls occupy an apartment and live cooperatively, preparing their own meals. The apartments are completely furnished except for bedding, kitchen utensils, and dishes. The facilities are excellent and offer a high standard of living for college students. The approximate annual rate for these accommodations is \$225.00.

Each hall is under the supervision of a head resident couple, who are generally responsible for the personal welfare and social life of students in the hall. Help in the homemaking experiences of budgeting, buying, meal planning, and the selection, care and construction of clothing is available from specialists who are assigned to the Heritage Halls. In addition, a specialist is available to assist students in planning social activities, developing recreational skills, and learning wise use of leisure time.

The university operates two residence halls for women where board and room are provided. These two halls, Amanda Knight Hall and Knight-Mangum Hall, house 418 students. The halls, completely furnished, provide every modern convenience, including well-planned food service. Students are under supervision of a trained head resident. The approximate annual rate for these accommodations is \$540.00.

Each woman student who desires to live on campus should consider carefully the type of accommodations desired in view of her economic needs, time available for activities within her housing situation and type of experience desired. Agreements are made for the year, and moving from one type of accommodation to another during the year is not permitted.

RESIDENCE HALLS FOR MEN

Board and room services for 72 men are provided in a traditional type residence hall, the Allen Hall, located one block from the campus. It provides sleeping rooms, dining hall, living and social room, study room, and adequate laundry and storage rooms.

Board and room services for 1170 men are provided in six new buildings known as Helaman Halls. These buildings form a beautifully designed residence hall development and are located to the north of the George Albert Smith Fieldhouse. There are five residence hall buildings, conveniently grouped around an attractively planned and developed central building. Each residence hall accommodates 234 students, with two men sharing each bedroom. In addition, living rooms, study rooms, central shower areas, recreational rooms, adequate laundry and storage facilities, and a head resident couple apartment comprise each building. These halls provide some of the best student living experiences offered on any university campus. The central building contains spacious dining rooms and a snack bar, providing the excellent food service for which the B.Y.U. is noted. This building also contains beautiful living rooms, recreational areas, administrative offices, and other management facilities such as mail rooms, gun storage areas, and laundry and dry cleaning pick up stations.

Adequate adult head resident and student senior resident personnel live in all halls to provide leadership and direction in the personal welfare and social life of each student. Student government and councils are organized to aid the head residents in administering good living practices in each hall. The approximate annual rate for these accommodations is \$540.00.

APARTMENTS AND HOMES FOR MARRIED STUDENTS

Family accommodations for 350 married couples and their children are provided in housing developments known as Wymount Village and Wyview Village.

The Wymount Village consists of 200 apartments (efficiency, one-bedroom and two-bedroom). These buildings were acquired from the federal government and moved to their present site following World War II. The maximum monthly rental rate approximates \$40.00.

The Wyview Village consists of 150 prefabricated homes purchased in 1956 from a federal government airbase and moved to a site adjacent to the campus. There are 100 two-bedroom and 50 three-bedroom homes. The monthly rental rates approximate \$45.00 for the two-bedroom and \$50.00 for the three-bedroom home. Each family, in addition, will pay for its own electricity.

Applications for apartments or homes are placed on the waiting list according to the size of the family needing accommodations. There is a six-month waiting list at the present time.

Note: The Off-Campus Department of the Student Housing Office can assist married students to find suitable apartments in the Provo community. Approximately 1,000 units are available to married couples.

Off-Campus Housing

Off-campus housing consists of apartments, rooms with kitchen privileges, board and room, and sleeping rooms. These facilities are inspected by the university to see that they comply with established standards before they are approved for student occupancy. Through the cooperative efforts of both the householders of the community and the university, constructive action has been taken to raise the standards of student housing throughout the community. Before making any commitments for off-campus housing, students should make sure that the place in which they contemplate living has been approved by the university. The Off-Campus Department of the Office of Student Housing maintains up-to-date listings of approved residences. This office is established to assist students upon their arrival on campus to find suitable quarters, if students desire to reside in the community.

RATES

Rates for off-campus housing accommodations vary with the type of service provided, and as a consequence, only a general indication can be given here. Sleeping rooms rent from \$13 to \$20 a month. Apartment accommodations run from \$14 to \$25 per month per student. Board and room are available at from \$50 to \$65 a month. Apartments for married students can be obtained at a rate of approximately \$45 to \$70 per month.

Food Service

Regular meal service is provided for students at five different cafeterias on the campus. Four of these are operated as part of the board and room service of residence halls. It is possible for students living off campus to buy meal tickets at reduced prices and eat in one of these places. The fifth cafeteria is in the Joseph Smith Building, where meals are served at reasonable prices on a cash basis.

The university operates three snack bars, one in the Joseph Smith Building, a second in the George Albert Smith Fieldhouse, and a third in the Helaman Halls Cannon Center. Food is available in them throughout the day. Food may be secured through vending machines located throughout the campus. Costs of meals and food service are kept as low as possible, consistent with sound operating management.

The university also operates a creamery where milk, ice cream and other dairy products may be purchased by students and faculty at very favorable prices. Students preparing their own meals find this service both desirable and economical.

Photo Studio

Located in the Eyring Science Center is a modern, fully equipped portrait and commercial photo studio, established to provide economical photographic service to students, faculty, and administrative departments. This studio has served the campus for twenty-five years. Any student or faculty member may take advantage of the services offered by the up-to-date department.

Recently, new production equipment has been added to make possible modern techniques in photographic production, thus increasing quality and efficiency. Any photographic need may be satisfied by the present studio.

Post Office

The Postage and Mailing Department is located in the Student Service Center. Its function is to pick up and deliver all of the inter-campus mail, to sort and deliver all U.S. mail received by the university, and to pick up and meter all of the outgoing U.S. mail. Two deliveries and three pick-ups are made each day on the campus.

Directory service is available for all mail addressed to Brigham Young University that does not indicate the department for which it is intended. This is true also for mail sent to students c/o Brigham Young University.

A U.S. Post Office Branch, Station 1, is located in the Student Service Center, where students can pick up and send mail. Individual rental boxes are available for student use.

Purchasing Department

The Purchasing Department is located in Room 272 of the Student Service Center. The function of the department is one of service. Its aim is to get the materials needed, when needed, at the most economical price and to maintain good public relations between the university and the suppliers.

Its services are designed to relieve faculty, other members of the university staff, and the Associated Students from certain duties of procurement. Through this department, all purchase orders are issued for equipment, supplies, and services for the university, with the exception of library books, which are ordered by the library on special purchase orders. Off-campus requisitions are received from the various departments authorizing the expenditure of budgetary funds.

The Student Supply Association (bookstore) is operated independently and does its own buying. Inter-departmental purchasing is done by means of a campus purchase order, which is sent directly to the selling department—i.e. bookstore, Y Press, Food Services. These campus purchase orders are not processed by the Purchasing Department.

Stores and Receiving

The Stores and Receiving Department is located in the metal quonset hut directly east of the Harvey Fletcher Laboratories Building. All deliveries are made here, and materials which have been received are inspected (with the exception of drugs, chemicals, zoological specimens, and delicate scientific instruments which go directly to the department using them) before being delivered to the various ordering departments.

Common items used by janitorial and maintenance departments are available for purchase on campus purchase orders. Quantity buying effects a savings to the university, and materials are available on the campus when needed.

Students Supply Association

The Students Supply Association operates in the Herald R. Clark Student Service Center and makes it convenient for students to purchase their books, school supplies, gifts, and a few accessories.

The store is a department of the university, and its policies are established by a board of directors appointed by the president of the university. Any profit made by the store goes to the university to be used as the president and Board of Trustees authorize. None of it goes to any individual.

Every effort is made to operate the store in an efficient and up-to-date manner so that it will be an example of good retailing practice. The board of directors has charged the manager with the responsibility of operating the store just as he would if it had stiff competition right on campus. At the same time, the store must not alienate the merchants downtown by being a "price cutter." Merchandise is sold at regular list prices.

University Press

The university has a large investment in printing equipment and presses which are used for the myriad printing jobs required on campus. The press is responsible for the printing of the student daily newspaper, the literary magazine, the yearbook, and numerous university brochures, bulletins, and catalogs.

Motion Picture Production

The Department of Motion Picture Production has been established to produce documentary, historical, and training films for use in the Church and in schools. A correlated program with drama, music, art, writing, and all creative departments on campus is used to produce films for instruction, television, and public relations.

Colleges and School

Colleges

Each college in Brigham Young University is an undergraduate college which offers work for the bachelor's degree only. All work beyond the bachelor's degree, in every department, is under the dean of the Graduate School.

Biological and Agricultural Sciences

Business

Education

Family Living

Fine Arts

General

Humanities and Social Sciences

Nursing

Physical and Engineering Sciences

Recreation, Physical and Health Education,
and Athletics

Religious Instruction

School

Graduate

College of Biological and Agricultural Sciences

Merrill J. Hallam, Acting Dean (110 B)

The following departments are in the College of Biological and Agricultural Sciences:

Agricultural Economics
Agronomy
Animal Husbandry
Bacteriology
Botany
Horticulture and Horticultural Specialties
Zoology and Entomology

Biological Division. Included in the biological division of this college are the Departments of Bacteriology, Botany, and Zoology and Entomology.

The biological division of the college enables the student to study and to understand more fully the plant and animal world. Preparation for teaching and research is emphasized.

Students who are interested in medical technology, medicine, dentistry, and veterinary science can receive their pre-training in the biological division of this college. Students desiring to register in these fields should make use of the guides offered.

Agricultural Division. Included in the agricultural division of this college are the Departments of Agricultural Economics, Agronomy, Animal Husbandry, and Horticulture and Horticultural Specialties.

The agricultural division provides instruction in the principles and technical operations pertaining to the farm, the shop, the trades, and industries. The students are prepared not only to satisfy the practical needs of the community, but they are also trained to become specialists in the fields of agricultural science, for laboratories, and also for teaching on all educational levels. Capable leadership and efficient service in the phase of work they choose are emphasized.

MEDICAL TECHNOLOGY

Advisers: David M. Donaldson, Richard D. Sagers

Through a cooperative agreement with various hospitals, the Brigham Young University has made provision for training medical technologists. The curricula are designed to prepare students for careers in clinical laboratories and medical research laboratories. The course indicated in the following outline consists of a three-year period of residence study at the Brigham Young University campus and one year of practical hospital internship.

During the fourth year (internship), the student will register and pay tuition. After satisfactory completion of the internship, the student is eligible to receive a Bachelor of Science Degree.

Failure to achieve a cumulative grade point average of 2.0 by the end of the sophomore year will be considered sufficient reason to disqualify a student from further participation in the Medical Technology program.

Recommended Curriculum for Majors

Freshman Year				Health 130	2
Course	Credit Hours			Total Hours	16 16 18
	A	W	S		
Chemistry 101, 102, 284	5	5	5		
Mathematics 101, 111, 112 ..	5	5	5		
English 111, 112, 113	3	3	3		
Physical education	1	1	1		
Religion	2	2	2		
Sophomore Year					
Course	Credit Hours				
	A	W	S		
Bacteriology 301, 501, 502 ..	5	5	5		

Zoology 105, 164	5	5	
Botany 145 or Zoo. 176			3
Religion	2	2	2
History 170	5		
Literature (electives)		4	2
Electives (Social Sciences) ..		5	
Total Hours	17	16	17

Chemistry 104, 220	5	5	
Zoology 371	2		
Zoology 417			4
Religion (Humanities)	3	3	
Electives (Social Sciences) ..			5
Physics 111, 112	5	5	
Humanities			3
Total Hours	16	18	17

Junior Year

Course	Credit Hours		
	A	W	S
Bacteriology 511	5		
Bacteriology 491	1	1	1
Bacteriology 391			3

Senior Year

Course	Credit Hours		
	A	W	S
Hospital laboratory internship	15	15	15

PRE-DENTAL COURSE

Advisory Committee: A. Lester Allen (chairman)

It is strongly recommended that the student select course work that will lead to a bachelor's degree in zoology, bacteriology, chemistry, sociology, or psychology. This will give him the broad background desired by the dental schools and will also prepare him to enter an alternative field in the event he is not admitted to dental school.

Ninety quarter hours of work, including the following courses, will satisfy the minimum requirements of most dental schools. The student is advised to consult dental school catalogs to make sure that specific requirements of the schools of his choice are met. Such requirements may be somewhat more or less than those suggested below.

English 111, 112, 113
 Mathematics 101, 111, 112
 Physics 111, 112, 113
 Zoology 105, 212, 263
 Chemistry 111, 112, 113, 221, 351, 352, 353

The remaining units should be completed in general education and course work leading to the bachelor's degree.

PRE-MEDICAL COURSE

Advisory Committee: A. Lester Allen (chairman)

It is strongly recommended that the student select course work that will lead to the bachelor's degree in zoology, bacteriology, chemistry, sociology, or psychology. This will give him the broad background desired by the medical schools and will also prepare him to enter an alternative field in the event he is not admitted to medical school.

Three years of work, including the following courses, will satisfy the minimum requirements of most medical schools, although preference is usually given to college graduates. The student is advised to consult medical school catalogs to make sure that specific requirements of the schools of his choice are met. Such requirements may be somewhat more or less than those suggested below.

English 111, 112, 113
 French or German 101, 102, 103 (reading knowledge)
 Mathematics 101, 111, 112
 Zoology 105, 212, 263, 373
 Chemistry 111, 112, 113, 221, 351, 352, 353
 Physics 111, 112, 113

The remaining units should be completed in general education and course work leading to the bachelor's degree.

PRE-OPTOMETRY COURSE

Chairman: A. Lester Allen

The requirements for admission to schools and colleges of optometry are not identical. Typically, the requirements include courses in English, mathematics, physics, chemistry, and biology or zoology. Some schools have varied requirements in psychology, social sciences, literature, philosophy, and foreign language.

The pre-optometry requirements represent a minimum of two academic years of study, all of which may be taken on this campus.

PRE-OSTEOPATHY COURSE

Chairman: A. Lester Allen

Students intending to apply for admission to osteopathic school should follow the outline given under pre-medicine.

PRE-PHARMACY COURSE

Chairman: A. Lester Allen

The first year of the curriculum of the pharmacy school may be completed at this campus. For specific details the student should consult the chairman of the pre-pharmacy committee.

PRE-VETERINARY COURSE

Adviser: Keith H. Hoopes

Certain basic entrance requirements are common to all of the veterinary schools in the United States. The courses listed below are designed merely as a guide to help the student fill these basic entrance requirements. In connection with his pre-veterinary curriculum the student is strongly urged to work toward a bachelor's degree, including course work in animal husbandry and the basic sciences. A bachelor's degree broadens one's ability to understand the principles of veterinary medicine, increases chances of acceptance into a veterinary school, and provides an alternative should the student fail to enter veterinary school.

The student is advised to consult the catalogs of veterinary schools of his choice for specific entrance requirements that may affect him. Attention is also called to the general university requirements for graduation, such as physical education, social science and humanities. Students in the colleges of veterinary medicine are not exempt from these requirements.

English 111, 112, 113
Chemistry 111, 112, 113, 221, 351, 352
Mathematics 111, 112
Botany 101
Zoology 105, 263
Physics 111, 112
Animal Husbandry 207, 215

College of Business

Weldon J. Taylor, Dean

The following departments are in the College of Business:

Accounting
Business Education and Office Management
Business Management
Economics

The purpose of the College of Business is to provide training which will enable students to make an effective contribution to the stability and abundance of our economy and thereby to acquire economic self-reliance and personal satisfaction. Because of the constant and progressive changes that are taking place in our society and because of the dynamic characteristics of business organization and operation, success in business requires both technical competence and a high degree of adaptability. For this reason the training provided in all departments of the college gives emphasis to the social, human, and technical aspects of the business and economic environment. In order to provide an understanding of the functions of business, the institutional framework for their accomplishment, the language and technical skills utilized, and above all the inter-relatedness of the several activities of business endeavor, all departments require course work in the following subject areas: marketing, production, finance, accounting, statistics, law, and economic theory.

The program is directed toward the achievement of the following specific objectives:

- (1) Developing an understanding and appreciation of the **human characteristics and social aspects** of business as they are related to the individual, the firm, and the community.
- (2) Training in the use and understanding of the tools and information used in measuring, analyzing, and controlling business operations and economic change.
- (3) Developing in the student a capacity to determine what information is relevant to the accurate solution of a business problem and to analyze, organize, and present the solution of the problem in an effective manner.
- (4) Helping the student to acquire the capacity to communicate ideas orally and in writing.

In order that all students who plan to graduate with a major in any of the departments in the College of Business (except business education majors) may benefit from a common background of basic information and tools to facilitate their advanced work, they are required to take the core courses listed below. These courses form a basic training normally to be completed during the first three years of college work and before the student undertakes specialization in his major area.

Accounting 101 and 102, or 201 and 202, and 230 and 231	16 hours
Economics 101 or 111, 331, 332 and 345	15 hours
Business Management 340, 342, 347 and 348	20 hours

Substitutions may be made in B.E.O.M. for Business Management 340 and Economics 345. Majors in economics may substitute Economics 453 for Business Management 348.

Economics 101 and 111 listed above apply toward the university general education requirement in social science.

The degrees of Bachelor of Arts and Bachelor of Science are given to graduates of this college.

M.B.A. PROGRAM

In response to a growing demand for responsible leadership in our industrial society, the university is in the process of developing a program which will lead to the awarding of a Master of Business Administration degree. It is contemplated that first registrations for the program will be taken for the Fall Quarter of 1959. Under the administration and direction of the College of Business, the program will be designed to serve students from all areas of undergraduate training who have demonstrated their capacity for a high level of performance. Further announcements will be made prior to the registration date. Inquiries should be directed to Dean Weldon J. Taylor, Brigham Young University.

PRE-GRADUATE BUSINESS PROGRAM

All students planning to secure a degree at a graduate school of business may register for a pre-graduate business program administered by the College of Business. Early contact (preferably in the freshman or sophomore year) should be made with the dean who will advise students concerning their work.

College of Education

Asahel D. Woodruff, Dean (118 McKay)
Antone K. Romney, Assistant Dean (118 McKay)

The following departments are in the College of Education:

Educational Administration
Educational Philosophy and Programs
Educational Research and Services
Instruction

The College of Education has as its principal function the educating of teachers, counselors, school librarians, principals, supervisors, superintendents, and other professional workers in education.

High School Teaching. A student who plans to prepare for a career in high school teaching and related activities may do so either by registering within the College of Education or by registering in one of the other colleges of the university. In the latter case, he must complete the required professional education courses and the necessary subject-matter and other courses for the teaching certificate under the joint direction of an adviser in the College of Education and an adviser in his major college.

Elementary School Teaching. A student who is interested in elementary school teaching should register in the College of Education immediately. The program is largely prescribed from the beginning of the freshman year. Late entrance into the College may delay graduation and certification beyond the usual four years.

Teaching as a Second Career. A student who is preparing for a career in a field other than teaching may provide himself with a second possibility for employment by meeting the requirements for certification as a teacher while he is completing the other preparation. By planning early in one's career, one may do this within the usual scope of the baccalaureate program and with little or no interference with the major program. It should be noted that at present this is particularly feasible for high school teaching, where depth of preparation in two or three subject-matter fields is desired, but also may be possible under special arrangements in the elementary school program.

Early Decisions Desirable. In either case, the student is urged to make the decision as early as possible in his college career to avoid conflicts in the scheduling of courses and to take fullest advantage of the maturing effect produced by spacing the study of teaching over a period of several quarters rather than concentrating it in two or three quarters.

How to Proceed. Those who decide to register in the College of Education should transfer to that college at once. All others will register in the colleges in which they are majoring. Every candidate for a teacher's certificate, however, regardless of the college in which he is registered, must have his certification program approved in the Certification Office, 111 McKay, before he enters the first course in the professional education sequence.

Cycle Organization. To insure adequate facilities and opportunity to take classes, it has been necessary to organize the programs of the College of Education into three cycles. Students in elementary education enter the cycles as beginning freshmen according to alphabetical listing of surnames. Students in secondary education are placed in the appropriate cycle according to subject-matter department. Inquiries concerning the proper cycle may be made in Room 111 McKay.

Because it is necessary to keep the cycles balanced, students will not be admitted to the first course without proper approval of their programs.

Students who are not meeting the academic and other standards of the university may be asked to withdraw from the Teacher Certification program for cause.

All students in the Teacher Certification Program will be required to meet minimum standards in speech and hearing. Speech and hearing tests may be given as part of the course requirements in the first course in the certification cycle.

Each student who undertakes preparation for teaching will be provided with a brochure which describes the requirements and procedures. He will be expected to keep a record of his program and his progress.

How to Become Certified. A student who completes the certification requirements set forth in the College of Education, regardless of the college in which he is majoring, is eligible for a certificate issued by the Utah State Board of Education. Certification is received from that board after application for certification has been made personally by the student through the dean of the College of Education, who in turn recommends the student to the state board. All students who have met the requirements of the state and the university are recommended when they apply. Applications will be furnished routinely to all regular students who are successfully completing the requirements near the end of the program. Special students should inquire in 111 McKay for application forms soon after they have 150 hours of credit.

A student may prepare himself to be certified as any of the following:

- Teacher in elementary schools
- Teacher in kindergarten
- Teacher in secondary schools
- Teacher of special classes for handicapped children
- Teacher of vocational homemaking in secondary schools
- Teacher of industrial arts in secondary schools
- Librarian in elementary schools
- Librarian in secondary schools
- Counselor
- Administrator-Supervisor in elementary schools
- Administrator-Supervisor in secondary schools
- Superintendent
- Teacher of unit shops in industrial arts
- Teacher of trade and industrial education day trade courses
- Supervisor of trade and industrial education
- Local director of trade and industrial education
- Teacher and teacher-coordinator of distributive education
- Local supervisor of distributive education

Certification Requirements. Certification of teachers is a function of the Utah State Board of Education. The Board of Education publishes requirements for certification in booklet form and in supplements. The present policy of the board is one of stating minimum requirements in general terms. This is done for the purpose of encouraging the institutions that prepare teachers to engage in continuous study of the requirements, going beyond the minima in whatever ways seem desirable. While the board is always able to certify a candidate without recommendation from a university, it chooses to require the recommendation of the officer in charge of teacher preparation in each institution. This requirement is of assistance not only to the state board, but also the institution because of the assurance that its efforts to improve the program of preparation will not be vitiated by the ready availability of ways of going around the minimum requirements.

Alterations in the requirements may be made from time to time. They will not be made retroactive in the case of any student, but may be made to apply to uncompleted portions of his program where this can be done without difficulty.

Selection of Candidates. Candidates for certification as teachers should ex-

pect to be carefully selected, even though their interest in certification is secondary to another career at the time. Only those who are individuals of high capacity, who have acquired a substantial general education, whose mastery of their major and minor fields is unquestioned, and whose personal characteristics reflect the best ideals of our culture will finally be recommended for certification.

The selection of those who will finally be recommended for certification is a continuous process. It begins when the student first announces his intention of seeking certification. It continues through all stages of his preparation. Among other things, it is necessary to maintain a grade point average of 2.25 to remain in the program ($C=2$).

Students Transferring from Other Colleges. To transfer from another college to the College of Education or to be admitted to the College of Education from another institution, the student must have an academic grade point average of 2.25 or better. To continue to take sequence courses in professional education, the student must have a cumulative grade point average of 2.25, or his last quarter grade point average must reach that level. If a student cannot qualify on either basis, he will be asked to withdraw from the certification program until his last quarter grades qualify him for re-entry. To qualify, he must carry successfully at least 12 hours of course work in one quarter with the prescribed grade point average.

Special Education. Utah has recently adopted a certification program in special education, with specialization provided in the following areas: children with intellectual handicaps, children with motor handicaps, children with speech and hearing handicaps, and children with academic handicaps. To be certified in Utah the individual must have a valid teaching certificate, plus appropriate experience, and must complete specified graduate study in the chosen area. Students interested in speech and hearing correction should contact the Speech Department. All others should consult the Department of Educational Research and Services.

Personnel and Guidance. Certification as a school counselor in Utah requires approximately one year of graduate work in personnel and guidance plus two years of successful teaching experience. For course listings in this area, see the Department of Educational Research and Services.

PREPARATION OF ELEMENTARY SCHOOL TEACHERS

The College of Education offers two programs during 1959-60, either of which will satisfy requirements for an elementary teaching certificate as well as graduation requirements for students registered in the College of Education. The candidate for certification must meet university graduation requirements. Students beginning the certification program after September 1, 1958, must register in program A.

Program A

Program A consists of four elements: 1. the Arts and Sciences Major for elementary school teachers, which also satisfies the university requirements in general education; 2. the professional preparation, which includes 45 hours of designated professional education courses, constituting a major for Elementary Education; 3. the group of electives, in which by judicious use of electives the student may add a subject-matter minor, if he so desires, thus materially contributing to his academic preparation and his chances for employment; 4. university requirements in religion, English, physical education and health.

1. **The Arts and Sciences Major** (92 hours). Required courses and courses which are elective within the major are listed below.

a. Physical Sciences (15 hours).

*(1) Required (9 hours): Chemistry 100; Geology 101; Physics 101.

(2) Elective (6 hours chosen from the following courses): Physics 127, 137, 301; Geology 102, 103, 502, 503.

b. Biological Sciences (16 hours).

* (1) Required (13 hours): Bacteriology 121; Botany 112; Zoology 105.

(2) Elective (3 hours from the following courses): Bacteriology 311; Botany 451; Foods and Nutrition 115; Zoology 145, 176, 230, 357.

c. Social Sciences (23 hours).

(1) Required (18 hours): History 170 or History 180 (those minoring in history should take History 120 and History 121 instead); Economics 101; Psychology 111; Sociology 460.

(2) Elective (5 hours from the following courses): Economics 461; Geography 105, 223, 275; Political Science 105; Psychology 340; Sociology 111, 112, 383, 389, 512.

d. Humanities and Aesthetics (33 hours).

(1) Required (31 hours): Art 266 and Art 110 or 406; English literature (6 hours) chosen from English 250, 261, 262, 263, 271, 272, 273, 356, 357, 358; History 360 and 366 (for Utah teachers) or 563, or any other history course which meets general education requirements; Instruction 324 or 325, 340; Music 102, 237; Speech 121.

(2) Elective (one course): Clothing and Textiles 110, 225; History 111, 365 (required for California certification); H.D.F.R. 324; Library Science 565; Music 101, 105; Speech 366.

e. Physical Education (5 hours).

(1) Required (4 hours): Phys. Ed. 181, 182, and 375, or 376.

(2) Elective (1 hour): Any lower division physical education course.

*If introductory courses have been taken in high school, the faculty advisor should be consulted for recommended courses which may be substituted.

2. The Major in Elementary Education (45 hours). The required courses are listed below.

Inst. 301	Basic Concepts of Teaching	3 hours
Inst. 320	Elementary Teaching Procedures	5 hours
Inst. 321	Reading and Arithmetic	5 hours
Inst. 449	Elementary Student Teaching	12 hours
Ed. R & S 403	Development and Learning	5 hours
Inst. 405	Analysis in Teaching	3 hours
Inst. 406	Teaching Materials Laboratory (Audio Visual)	3 hours
Ed. Phil. 415	Educational Values	3 hours
Ed. Adm. 310	The State, the School, and the Teacher	3 hours
Health Ed. 361	Health Education for Elem. Teachers	3 hours

Students who do not take the Arts and Sciences Major are required to take Art 226 plus an elective course in art. They must also take Music Ed. 237, Music 102, Phys. Ed. 375 or Phys. Ed. 376, Inst. 340, and Inst. 324 or Inst. 325 as part of the elementary preparation.

3. Elective. (24 to 39 hours, depending on the number of hours taken per quarter). Electives may be used to add a subject-matter teaching minor. See "Subject-Matter Preparation of Secondary School Teacher" below. Sufficient electives must be taken to bring the total to 186 hours.

4. University requirements not covered by majors or the electives (35 hours). See "Requirements for Graduation" section in this catalog.

(1) Religion (24 hours)

(2) Freshman English (6 or 9 hours)

(3) Health 130 (2 hours)

Program A Cycles. Copies of the cycles with complete programs for all four years are available in Room 111 McKay (Teacher Certification Office).

Program B

Only those students in the following categories will be admitted to Program B:

- (a) Students registered in the elementary teaching program prior to September, 1958.
- (b) Students registered in other colleges of the university prior to September, 1958, and who desire to transfer to the College of Education as elementary education majors.
- (c) Students who transfer to Brigham Young University from other schools and who transfer before October, 1959.

The program outlined below will satisfy requirements for an elementary teaching certificate as well as graduation requirements for students registered in the College of Education. The phases involved in completion of these requirements should be coordinated so that the entire program functions smoothly.

1. General Education Requirements. The candidate for certification must meet university requirements for graduation. See "Requirements for Graduation" section in this catalog.

2. Academic and Professional Preparation. The candidate for certification must complete the following program in academic and professional courses.

- a. **Required Courses.** He must complete 53 hours of designated elementary and professional courses, which are listed below in recommended sequence. There are three cycles offered, in each of which the sequence is the same. Cycle I begins Spring Quarter, sophomore year; Cycle II, Autumn Quarter, junior year; and Cycle III, Winter Quarter, junior year. Each student is expected to choose a cycle with the help of his adviser and to remain in that cycle until graduation.

First Quarter of Each Cycle

	Hours
E.R.S. 305. Development and Learning (directed observation TBA)	6
Art 226. Art for Elementary School Teachers (an elective course is also required)	3

Second Quarter

Instruction 345. Basic Classroom Procedures and Participation (participation TBA)	4
Music 237. Music for Elementary School Teachers (Prerequisite Music 102)	3
Phys. Ed. 375 or Phys. Ed. 376. Physical Education for Primary or Intermediate Grade Teachers	2

Third Quarter

*Health 361. Health Education for Teachers	3
Instruction 447. Curriculum and Methods of Elementary School Language Arts and Arithmetic (directed observation TBA)	4
Instruction 340. Children's Literature	3

Fourth Quarter

Instruction 346. Curriculum and Methods in Elementary School Social Studies and Science (directed observation TBA)	4
Instruction 448. Student Teaching (public schools, one half day)	6
*Administration 310. The State, The School, and The Teacher	3

Fifth Quarter

Instruction 449. Student Teaching (public schools, full day for five weeks) 6

Instruction 450. Principles of Curriculum and Teaching 3

Ed. Phil. 415. Educational Values 3

*Health 361 and Ed. Adm. 310 may be taken any time in the sequence with the permission of the adviser.

b. Elective Required. The candidate for certification must have, in addition to the courses listed above, one additional elective course (at least 2 hours) in art. Especially recommended are Instruction 324 and 325.

c. Minor. Elementary instruction majors are required to have a minor of 20 hours in an approved subject, plus 10 hours in a subject related to the minor. The following minors and related fields are approved:

Minor	Related Fields
Art	Music, Speech
English*	Journalism, Speech, Foreign Language, Library Science
Foreign Language	Journalism, English*, Speech
Geography	Geology, History, Political Science
Geology	History, Political Science, Geography
H.D.F.R.	Sociology, Psychology
Library Science	Journalism, English*, Speech
Music	Art, Speech
Physical Education	Youth Leadership, Health**, Recreation
Psychology	Sociology, H.D.F.R.
Recreation	Youth Leadership, Health**, Physical Education
Sociology	Psychology, H.D.F.R.
Special Education (Exceptional Child)	Psychology, Speech
Speech Education	Music, Art, Psychology, Special Education
Youth Leadership	Recreation, Physical Education, Health**

Certain subjects may be used in a split-minor combination, totaling 30 hours. The following combinations are approved:

Geology-Geography	Physics-Geology (or Geography)
History-Geography	Political Science—History (or Geography)
H.D.F.R.-Sociology (or Psychology)	Youth Leadership—Recreation (or Health**)
Music-Art	Sociology—Psychology
	Speech Education—Special Education

*English 111, 112, 113, 115, 116, may not be included in total hours required.

**Health 130 may not be included in total hours required.

3. Additional Courses Recommended. The following courses are recommended as electives to more fully prepare the candidate in elementary instruction:

	Hours
Instruction 422. Early Childhood Education (required for kindergarten certification in California)	3
Instruction 324. Arts and Crafts for Elementary Teachers	2
Instruction 325. Arts and Crafts for Early Childhood	2
Instruction 433. Construction and Use of Teaching Materials	2

Instruction 338. Manuscript writing for Elementary Teachers (especially recommended for primary grade teachers)	3
Music 301. Sacred Music (should be taken same quarter as Instruction 449 to satisfy religion requirements)	2
Instruction 305. Audio-Visual Education (required for California certification)	3
E.R.S. 550. Guidance Services in Public Schools	3
Geology 501. Introduction to Study of Minerals and Rocks	3
Geology 502. Geology for Teachers	3
H.D.F.R. 210, 211. Child Development and Observation	3, 1
H.D.F.R. 572. Professional Person and Families	3
Music 170. Vocal Workshop	1
Music 102. Fundamentals of Music	3
Music 105. Group Piano	3
Psychology 320. Psychology of Childhood	3
Psychology 321. Psychology of Adolescence	3
Psychology 445. Psychology of Exceptional Child (especially recommended for special education teachers)	3
Speech 355. Speech in the Elementary School	3

Note: Any deviation in the sequence or outlined program must be approved in writing and filed in the Certification Office, 111 McKay.

PREPARATION OF SECONDARY SCHOOL TEACHERS

The College of Education offers professional courses leading to secondary certification. Students desiring certification in this area must complete course requirements in the following areas:

1. **General Education.** Examine the section "Requirements for Graduation" for an explanation of these requirements.
2. **An Approved teaching major and minor, or composite major.** See below.
3. **Professional Education.** The following required courses complete the requirement for a minimum of 33 hours of professional education. Courses should be taken in the sequence shown below, except that Health 362 and Ed. Adm. 310 may be taken at any time. E.R.S. 403 and Instruction 405 may be taken simultaneously, as may also Instruction 406 and Ed. Phil. 415. For course prerequisites check course descriptions.

	Hours
Instruction 301. Basic Concepts of Teaching	3
Instruction 377. Secondary Teaching Procedures	3
Instruction 479. Secondary Student Teaching	12
E.R.S. 403. Development and Learning	5
Instruction 405. Analysis in Teaching	3
Instruction 406. Teaching Materials Laboratory (Audio-Visual) (Required for California certification, recommended for Utah teachers.)	3
Ed. Phil. 415. Educational Values	3
Health 362. Health Education for Teachers	3
Ed. Adm. 310. The State, the School, and the Teacher	3

SUBJECT-MATTER PREPARATION OF SECONDARY SCHOOL TEACHERS

The university offers two approaches to certification. One consists of the traditional teaching major and teaching minor; the other consists of a composite teaching major.

Teaching Major and Teaching Minor. A teaching major consists of 36 or more hours of designated courses in a subject taught in Utah high schools and approved by the College of Education. A teaching minor consists of 24 or more hours of designated courses in a subject also taught in the secondary schools of Utah and approved by the College of Education. The 36-52 hour groups listed in the following material are approved for the teaching major; the 24-33 hour groups listed in the same sections are approved for the teaching minor.

Subjects approved as either teaching majors or minors (please note exceptions):

Accounting	Industrial Education and Drawing
Agronomy	Journalism
Animal Husbandry	Latin
Art	Mathematics
Botany	Music Education (minor or composite major only)
Business Education with Shorthand	Office Management without shorthand (major only)
Chemistry	Physical Education
Drawing (minor only)	Physics
Economics	Political Science
English	Psychology
French	Recreation (minor only)
General Business (minor only)	Spanish
Geography	Speech
Geology	Sociology
German	Zoology
Health Education	
History	

Composite Teaching Major. A composite teaching major consists of work in three subjects in the same general field totaling at least 60 hours, with 24 or more hours of designated courses in a dominant subject, and 18 or more hours of designated courses in each of two related subjects in the same general area. For guidance in selecting and completing a composite teaching major, students must consult with the Certification Office, 111 McKay, whose responsibility it is, under the cooperative advisement with the academic departments, to administer composite majors. Only those general fields listed below may be selected for a composite teaching major.

Any deviation from the academic programs as outlined must be approved in writing by the chairman of the subject-matter department concerned and by the Teacher Certification Office and filed with the student's permanent records in the College of Education.

The following general fields may be used for composite teaching majors. Three subjects of those listed in each field (a dominant and two related subjects) constitute a composite teaching major. With only those exceptions noted, any subject in the general field may be chosen as the dominant.

Substitution of other subjects within the general field is not acceptable.

Accounting and Office Management:

- Accounting
- Economics
- Business Education with Shorthand
- Office Management without Shorthand

Agriculture:

- Agronomy
- Animal Husbandry
- Horticulture (related subject only)

Homemaking Education.

Language Arts:

- English

Journalism

Speech

Mathematics and Physical Sciences:

Chemistry

Geology

Mathematics

Physics

Music Education (any one of the following constitutes the composite):

Composite Music Education Major

Composite Vocal Major

Composite Instrumental Major

Health, Physical Education, and Recreation:

Health

Physical Education

Recreation

Social Sciences:

Economics

Geography

History

Political Science

Psychology

Sociology

COURSES REQUIRED FOR TEACHING MAJORS, TEACHING MINORS, AND COMPOSITE TEACHING MAJORS

ACCOUNTING:

38-hour list (Major): 101 or 201, 102 or 202; 285, 350, 351, 352; 8 hours chosen in consultation with the chairman of the Accounting Department from Accounting 230, 316; Business Management 243, 348; B.E.O.M. 106; Economics 453.

24-hour list (Minor or Dominant Subject): 101 or 201, 102 or 202; 14 hours chosen in consultation with the chairman of the Accounting Department from 230, 285, 316, 350, 351, 352; B.E.O.M. 106.

18-hour list (Related Subject): 101 or 201, 102 or 202; 8 hours chosen in consultation with the chairman of the Accounting Department from 230, 285, 316, 350; B.E.O.M. 106.

AGRONOMY:

37-hour list (Major): 141, 251, 260, 262, 305; and 18 hours chosen in consultation with the chairman of the Agronomy Department from 301, 302, 307, 314, 451, 455, 459.

24-hour list (Minor or Dominant Subject): 141, 251, 262; and 12 hours chosen in consultation with the chairman of the Agronomy Department from 260, 302, 305, 307, 314, 451, 455.

18-hour list (Related Subject): 141, 251; and 10 hours chosen in consultation with the chairman of the Agronomy Department from 260, 262, 302, 305, 451.

ANIMAL HUSBANDRY:

39-41 hour list (Major): 207, 208, 215; and 25-27 hours selected from 120, 161, 162, 170, 171, 311, 312, 335, 337, 340, 341, 345, 346, 370, 446, 447, 464.

25-29 hour list (Minor or Dominant Subject): 207, 208, 215; and 10-14 hours selected from 161, 162, 170, 171, 311, 312, 335, 337, 340, 341, 345, 346, 370.

19-hour list (Related Subject): 207, 208, 215.

(Note: Certain courses may be substituted in the above lists with the approval of the department chairman and the Teacher Certification Office.)

ART:

45-hour list (Major): 12 hours from 111, 121, 122 or equivalents; art history, 9 hours; crafts, 8 hours; advanced design, 2 hours; commercial art, 4 hours; graphics, 2 hours; interior design, 2 hours; painting, 4 hours; sculpture, 2 hours.

27-hour list (Minor): Drawing (lower division), 4 hours; design (lower division), 4 hours; art history, 3 hours; crafts, 4 hours; commercial art, 2 hours; painting, 4 hours; sculpture, 2 hours; interior design, 2 hours; graphics, 2 hours.

BOTANY:

Note: Prospective biology teachers should complete either a zoology major and botany minor, or a botany major and a zoology minor.

39-40 hour list (Major): 101, 123, 145, 230; 351 or 355; 390 or 391; 410, 430; 490 or 491; 531 or 535; 543. Recommended: Bacteriology 121, Botany 451.

24-hour list (Minor): 101, 112, 123; and 10 hours selected from 145, 230, 410, 430, 451.

BUSINESS EDUCATION WITH SHORTHAND:

36-hour list (Major): Typewriting (2-4 hours)—B.E.O.M. 101*, 102**, 103 or equivalent; 104 required.

Shorthand (8-16 hours)—B.E.O.M. 111*, 112**, 113, 214 or equivalents; 311 required.

General (13 hours)—B.E.O.M. 106, 220, 470, 475.

Electives—3-13 hours as needed to complete a minimum of 36 hours must be selected in consultation with the chairman of the Office Management Department from B.E.O.M. 305, 320, 325, 480, 485, 486, Bus. Mgt. 480, 481.

*Not allowed if student has earned two years of credit in this subject in high school.

**Not allowed if student has earned two years of credit in this subject in high school.

(**Note:** In order to qualify for a teaching major in this area, the student must also have completed Accounting 101, 102, and Economics 101.)

24-hour list (Minor, Dominant, or Related Subject): **Typewriting**, 4 hours including O.M. 104.

Shorthand, 12 hours including O.M. 311.

General, (8 hours)—O.M. 106, 220, 470.

CHEMISTRY:

49-55 hour list (Major): 111, 112, 113, 414, 321, 322, 351, 352, 353, 354, 356; 461 and 462; or 581 and 582; or 461 and 504.

24-hour list (Minor or Dominant Subject): 111, 112, 113, 221 or 321, and four additional hours of upper division credit in chemistry.

20-hour list (Related Subject): 111, 112, 113, 221 or 321.

(**Note:** In any of the foregoing chemistry courses, Chemistry 105, 106, and 107, with a grade of B or better, will be considered equivalent to Chemistry 111 and 112.)

DRAWING:

25-hour list (Minor): 102, 109, 113, 204, 244, 245, 248, 341, 380.

ECONOMICS:

36-hour list (Major): 101 or 111; 274, 345, 461, 575, and 10 to 13 hours of electives.

24-hour list (Minor or Dominant Subject): 101 or 111; 274, 345, and 6 to 9 hours of electives.

18-hour list (Related Subject): 101 or 111; 274, 345, and 0 to 3 hours of electives.

ENGLISH:

45-52 hour list (Major): 221, 251; 361 or 363; 362, 382, 490; at least 5 hours from 241, 242, 243, 345, 356, 357, 358, 552, 553, 554; four courses from 371, 372, 373, 374, 375. Two of the following substitutions are allowed: 481 for 371, 541 for 372, 552 for 372, 542 for 373, 553 for 373, 554 for 374, 332 for 375.

24-hour list (Minor, Dominant, or Related Subject): 221, 251, 282 and one elective (chosen in consultation with the chairman of the English Department) or 382; 362; one course from 372, 373, 374, 375 (374 or 375 recommended).

FRENCH:

36-hour list (Major): 321, 322, 323, 441, 442, 443, 431 or 451 and 511; and 12 hours of electives to be selected from 201, 202, 203, 204, 301, 302, 311, 431, 432, 451, 452.

24-hour list (Minor): 321, 322, 323, 441, 442 and 511; one three-hour course from 431, 432, 433, 442, 443, 451, 452; and nine hours of electives from 203, 204, 311, 431, 432, 433, 442.

GENERAL BUSINESS: (May not be used as part of a composite teaching major.)

24-hour list (Minor): Accounting 101 or 201, 102 or 202; Economics 101, and 102 or 201; and 9 hours selected from Accounting 316, Economics 274, 345, 461. Above 20 hours, a student may select from Bus. Mgt. 205, 374.

(Note: If a student selects this list as a teaching minor, the above courses in accounting, economics, or business management may not be used in completion of his teaching major.)

GEOGRAPHY:

40-hour list (Teaching Major): 105, 110, 223, 275, 310, 560 or 584; and electives to total 40 hours credit chosen in consultation with the chairman of the Geography Department.

24-hour list (Minor or Dominant Subject): 105, 110, 223, 310; and 4 hours credit chosen in consultation with the chairman of the Geography Department.

18-hour list (Related Subject): 105 or 110, 223, 310, and 3 hours credit chosen in consultation with the chairman of the Geography Department.

GEOLOGY:

36-hour list (Major): 102, 111, 112, 113, 251, 252, 253, 311, 480, 502.

27-hour list (Minor or Dominant Subject): 102, 111, 112, 113, 251, 252, 253, 502.

18-19 hour list (Related Subject): 102, 111, 112, 113, 502; or 102, 111, 112, 501, 502, 503.

GERMAN:

36-hour list (Major): 321, 322, 431, 432, 433, 441, 442, 443, 511, and 9 hours of electives to be selected from 201, 202, 203, 204, 311, or other courses on upper division or graduate level.

24-hour list (Minor): 321, 322, 441, 442, 443, 511, and six hours of electives to be chosen from 201, 202, 203, 204, 311, 431, 432, 433.

HEALTH EDUCATION:

36-hour list (Major): 121, 325, 381, 451, 521, 530, 551, and 552; and 13 hours chosen from the elective courses which also count in Health Education. The student's program is to be established through consultation with an adviser from the department.

24-hour list (Minor): 121, 381, 521, and 530; and 6 hours selected from the

following: 310, 325, 451, 551, 552, and Foods and Nutrition 115. In addition students may count 7 hours from the elective courses which also count in Health Education.

HISTORY:

45-hour list (Major): 110, 111, 120, 121, 366; and 22 hours selected in consultation with the chairman of the History Department. (Note: at least 15 hours of the major must be upper division credit.)

26-hour list (Minor or Dominant Subject): 110, 111, 120, 121, 366; and 3 hours selected in consultation with the chairman of the History Department.

20-hour list (Related Subject): 110, 111, 120, 121.

(Note: Students may not use History 170 or 180 toward completion of the above requirements unless approved by the chairman of the History Department.)

HOMEMAKING EDUCATION:

(Note: Homemaking education may be used only as a composite teaching major; no teaching major or teaching minor may be selected from this field.)
64-65 hour list: Clothing and Textiles 110, 115, 225, 260 or 370, 335, 475.

Food and Nutrition 110, 255, 256, 264, 340.

Economics and Management of Home 325, 330, 470.

Housing and Design 360, 375.

Human Development and Family Relationships 210, 211, 322, 361.

Nursing 288.

At least 6 hours selected from Clothing and Textiles 355; Food and Nutrition 330, 345, 560; Housing and Design 120, 335; Human Development and Family Relationships 160, 360.

(Note: In order to complete requirements for homemaking certification, the student must complete the following professional education courses (33 hours): E.R.S. 304; Homemaking Ed. 377, 475, 478, 479; Ed. Instr. 450; Ed. Adm. 310; Ed. Phil. 415; Health 362.)

HORTICULTURE:

18-hour list (Related Subject): 101, 103, 107, 402; Agronomy 459; and 4 hours electives in horticulture.

INDUSTRIAL EDUCATION AND DRAWING:

61-hour list (Major):

Drawing*: Drawing 102, 109, 113.

Woodwork: Ind. Ed. 101, 103, 104, and 3 hours selected from Ind. Ed. 302, 303, 304.

Metalwork: Ind. Ed. 120, 125, 130, 140.

Craftwork: Ind. Ed. 260, 464, 466, and 2 hours selected from Art 263, 259, 366.

Graphic Arts: Ind. Ed. 280.

Electricity: Ind. Ed. 360, 365.

Shop Maintenance: Ind. Ed. 301.

Shop Planning and Organization: Ind. Ed. 370.

Guidance Services in the Public Schools: E.R.S. 550.

Audio-Visual Education: Inst. 406.

*If drawing is selected as a teaching minor 8 elective hours must be taken and omitted from the major requirements.

24-hour list (Minor): Ind. Ed. 101, 103, 140, 260, 360, and Drawing 102, 113, and 3 elective hours in Ind. Ed. or Drawing.

JOURNALISM:

36-hour list (Major): 211, 212, 305, 321, 322, 490; 14 hours from: 101, 307, 311, 312, 315, 323, 330, 331; and Physics 177.

24-hour list (Minor, Dominant, or Related Subject): 211, 212, 321, 322, 490; 7 hours from 101, 311, 312, 315, 323, 330.

LATIN:

36-hour list (Major): 441, 442, 443, 511, 541, 542, 543; and 15 hours of electives to be selected from 201, 202, 203, 204, 311, 491, 492, 493, and 667, 668, 651.

24-hour list (Minor): 441, 442, 443, 511, 541, 542 and 6 hours of electives from 203, 204, 311, 491, 492, 493, 543, 667, 668, 651.

MATHEMATICS:

36-hour list (Major): 112, 231, 232, 377 and 18 additional hours from among 233, 234, 307, 311, 312, 313, 347, 357, 371, 372, 373, 387, 541, 542, 543, 551, 552, 553.

24-hour list (Minor or Dominant Subject): 112, 231, 232, 377 and 6 additional hours from among the courses listed in the 36-hour list above.

18-hour list (Related Subject): 112, 231, 232, 377.

(Note: Credit in Math 101 and 111 cannot be counted towards certification requirements. Math 377 is required for teacher certification in Mathematics. Math 307 and Math 387 are especially recommended for inclusion in the 36-hour and 24-hour lists.)

MUSIC EDUCATION:

The first two lists may be used for teaching minors only.

Instrumental Music Emphasis Area:

28-hour list: 101 or 484; 190, 301, 302; 10 hours selected from 160p, 368, 369, 370, 372, 373, 375, 376; 6 hours of instrumental ensembles.

Vocal Music Emphasis Area:

29-hour list: 101 or 484; 190, 301, 302; 160p, 366, 374, 568; 4 hours of vocal ensembles.

(Note: The above teaching minors are to be selected only when the accompanying teaching major is in an area other than Music.)

The three areas listed below may be used as composite teaching majors.

Composite Music Education Major:

For the bachelor's degree with a composite music education major, a student completes the following music courses or their equivalent:

83-84 hour list: Music 190, 191, 192, 290, 291, 292; 301, 302, 383 (6 hours which count as religion); 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373 (the student omits the workshop in his specialty); 374, 375, 376, 378; 484, 485; ensemble (6 hours); individual instruction in the student's specialty (18 hours)*; vocal ensemble (9 hours); functional piano (12 hours)*.

Band instrumentalists who pursue one of the music education degrees participate at least one Autumn Quarter in marching band and one Winter Quarter in varsity band, preferably on a minor instrument. Voice majors sing in at least two ensembles.

Composite Vocal Major:

For the bachelor's degree with a composite vocal major the student completes the following music courses or their equivalent:

84-hour list: Music 190, 191, 192, 290, 291, 292; 301, 302, 383 (6 hours which count as religion); 366, 374, 378; 466, piano accompanying (3 hours); 484, 485; 566, 567, 568; individual instruction in voice (18 hours)*; vocal ensemble (9 hours); functional piano (12 hours)*.

Composite Instrumental Major:

For the bachelor's degree with a composite instrumental major, the student completes the following music courses or their equivalent:

86-hour list: 190, 191, 192, 290, 291, 292; 301, 302, 383 (6 hours which count as religion); individual instruction in the student's specialty (18 hours)*; instrumental ensemble (9 hours); vocal ensemble (3 hours); functional piano (6 hours)*; 367, 368, 369, 370, 371, 372, 373 (the student omits the workshop in his specialty); 375, 376, 378, 484, 485.

*The number of hours in the specialty or functional piano may be reduced in the case of students with considerable previous training in these areas as determined by entrance examinations. At the end of each year the student takes an examination on his major instrument or in voice to determine his level of achievement. For the examinations each candidate submits a list of his repertoire indicating compositions or studies especially prepared for the examination. Forms on which a record of the student's repertoire is kept and booklets containing outlines of instrumental and vocal proficiency requirements are available at the Music Department office.

Music education majors must pass piano proficiency examinations appropriate to their majors during the first quarter of residence or take class or private instruction in piano until they pass the examination. Music education majors must accumulate at least twenty minutes of recital appearance time either as soloists or chamber music performers.

OFFICE MANAGEMENT WITHOUT SHORTHAND:

36-37 hour list (Major): O.M. 103, 106, 220, 305, 320, 325, 470; Accounting 101 or 201, 102 or 202, 316. Additional courses to complete minimum 36 hours must be selected in consultation with the chairman of the Office Management Department from O.M. 480, 485, 486; Accounting 555; and Bus. Mgt. 480, 481.

(Note: In order to qualify for a teaching major in this area, the student must have completed Economics 101. The 24-hour group listed above under "Business Education with Shorthand" cannot be used as a minor with this list.)

PHYSICS:

38-hour list (Major): 211, 212, 213, 351, 352, 321, 322, and 6 hours selected from upper division courses.

27-hour list (Minor or Dominant Subject): 211, 212, 213, 301, 351, 352, and 3 hours selected from upper division courses.

21-hour list (Related Subject): 211, 212, 213, (or 111, 112, 113), and 6 hours selected from 127, 128, 137, 177, 301 or other upper division courses.

PHYSICAL EDUCATION:

Core Program (required of all men and women majoring in physical education): 180, 181, 182, 330, 341, 344, 413, 446, 464, 570.

47-hour list for Men (Major): The core program; 221, 222, 223, 224, 225, 226, 227, 228, 371, 372, 373, 374; and 2 hours selected from 206, 207, 314, 511, 542, and 543. Substitution for any of the above courses is allowed only upon consultation with and approval of the department chairman and the Teacher Certification Office. Additional preparation courses required are Health 121, Foods 115, Zoology 105 or Bacteriology 121 or Botany 101, Zoology 164, Physics 101, Chemistry 101, and Speech 121. (Note: These preparation courses, with the exception of Health 121 and Foods 115, may be applied toward general education requirements).

47-hour list for Women (Major): The core program; 160, 183, 187, 188, 189, 207, 241, 242, 243, 244, 245, 246, 375 or 376, and 572. Additional preparation courses required are Health 121, Zoology 105 or Bacteriology

121 or Botany 101, Zoology 164, and Speech 121, (**Note:** These preparation courses, except Health 121, may be applied toward general education requirements.)

24-hour list for Men (Minor, Dominant, or Related Subject): 180 or 181, 330, 341, 413; 9 hours selected from 371, 372, 373, 374; and 5 hours selected from 221, 222, 223, 224, 225, 226, 227, 228.

24-hour list for Women (Minor, Dominant, or Related Subject): 180, 181, 182, 183, 187, 188, 189, 330, 341, 413; and 8 hours selected from 241, 242, 243, 244, 245, 246.

POLITICAL SCIENCE:

45-hour list (Major): 110, 111, 112 or 115, 300; and 27 hours selected in consultation with the chairman of the Political Science Department to include one course from 301, 303, 306; one course from 310, 515, 320, 322; one course from 330, 335, 532; one course from 350, 355, 556, 557, 360, 362; one course from 370, 375, 376, 565, 571, 580, 581, 582, 583; one course from 375, 376, 391, 396, 397, 595.

24-hour list (Minor or Dominant Subject): 110, 111, 112 or 115; and 9 hours selected in consultation with the chairman of the Political Science Department.

18-hour list (Related Subject): 110, 111, 112 or 115; and 3 hours selected in consultation with the chairman of the Political Science Department.

PSYCHOLOGY:

41-hour list (Major): 111*, 321*, 360*, 365*, 370*, 374, 378*, 491, 340 or 540*; and at least 8 hours from 185, 320, 350, 445*, 550*, and 585*.

24-hour list (Minor or Dominant Subject): 111, 311, 321, 374, 378; and at least 3 hours from 185, 320, 340 or 540, 350, 445, 550, and 585.

19-hour list (Related Subject): 111, 311, 321; and at least 6 hours from 185, 320, 340 or 540, 350, 374, 378, 445, 550, and 585.

*Required on the undergraduate level for the School Psychologist Program. (**Note:** In order to complete professional education requirements, the student should complete E.R.S. 304 rather than E.R.S. 305.)

RECREATION:

24-hour list (Minor or Dominant Subject): 301, 387, 388, 505, 537; P.E. 314; P.E. 131 or P.E. 133 or Rec. 121; P.E. 180, 181, 182, 280, 161, 164 or 165; 2 hours selected from P.E. 123, 126, 135, 137.

18-hour list (Related Subject): 301, 387, 388, 505, 537; P.E. 314; 3 hours selected from P.E. 180, 181, 182, 280.

(**Note:** The student may substitute for only one of the above courses with the consent of the department chairman and the teacher certification office.)

(**Note:** Elementary education students who wish to use their electives for a minor in recreation should refer to the Department of Recreation section of this catalog.)

SOCIOLOGY:

44-45 hour list (Major): 111, 112, 320, 503, 504, 519, 528, or 601, and 16 hours selected from 277, 350, 380, 389, 392, 403, 423, 426, 443, 449, 505, 512, 550, 552, 560.

26-hour list (Minor or Dominant Subject): 111, 112, 320 or 519, 503 or 504, and 8 hours selected from 277, 350, 380, 389, 392, 403, 423, 426, 443, 449, 505, 512, 550, 552, 560.

18-hour list (Related Subject): 111, 112, and 8 hours selected from 277, 350, 380, 389, 392, 403, 423, 426, 443, 449, 505, 512, 550, 552, 560.

SPANISH:

36-hour list (Major): 321, 322, 323, 442, 443, 452, 453, and 511, and 12 hours of electives to be selected from 201, 202, 203, 204, 311, 441, 451.

24-hour list (Minor): 321, 322, 323, and 511; two 3-hour courses from 441, 442, 443, 451, 452, and 453; and 6 hours of electives to be chosen from 201, 202, 203, 204, 311 or courses not already taken from 441, 442, 443, 451, 452, and 453.

SPEECH:

44-hour list (Major): 101, 103, 111, 121, 122, 213, 126, 241, 391, 401, 460, 471; 3 hours from 319, 320, 321; and 8 hours chosen in consultation with the chairman of the Speech Department.

24-hour list (Minor, Dominant, or Related Subject): 24 hours selected in consultation with the chairman of the Speech Department from 101, 103, 111, 121, 122, 123, 126, 241, 319, 320, 321, 391, 460, 471.

ZOOLOGY:

(Note: Prosecutive biology teachers should complete either a zoology major and botany minor, or a botany major and zoology minor.)

44-hour list (Major): 105; 176 or 376 or Botany 145; 212, 213, 230, 343 or 345; 346 or 347; 385, 496, 497, 498; 365 or Botany 410; 550 or Botany 430.

(Note: If Botany 145 is taken in the minor, then the student should take Zoology 376. If Botany 410 and Botany 430 are taken in the minor, the student should take Zoology 372 and 8 additional hours selected in consultation with the department chairman.)

24-hour list (Minor): 105, 164, 176, 230, 385, 496, 497, and 2 hours of electives.

TEACHER PLACEMENT

Placement of teachers is a function primarily of the University Placement Bureau, which works in close collaboration with the College of Education. All students are required to register in the Placement Bureau as a prerequisite to registration for student teaching, whether they have positions already assured or not. Registration before leaving the campus enables the office to be of service at later dates as new opportunities or new needs arise.

THE LABORATORY SCHOOLS

Director: Avard A. Rigby

Assistant Directors: John K. Crnkovic, instruction; Max J. Berryessa, operations

The laboratory schools (kindergarten through twelfth grade) are maintained by the College of Education to assist in the preparation of teachers and in the improvement of educational programs. Students may secure valuable experiences there as part of their preparation for teaching. The laboratory schools are also intended to furnish a setting for research in child development, in learning, in social processes, and in the planning and conducting of educational programs. Use of these facilities is under the supervision of the Director of Laboratory Schools, an assistant director of instruction, and an assistant director of operations. Interested faculty members and students should arrange visits and demonstrations through the office of the assistant director of instruction.

In keeping with the laboratory functions of the school, pupils are frequently under observation and study, and the classes in the school are subject to various kinds of experimental treatment for the purpose of improving instruction. Regardless of these functions, however, the instruction is kept at a high level of

quality, since one of the principle purposes of the school is to demonstrate superior educational practices for the benefit of teachers-in-training and teachers-in-service.

Moral and religious education is a constant part of the instruction in these schools. Pupils are admitted under the assumption that they will adhere to L.D.S. Church standards of personal conduct, dress, and morality. Observance of these standards is a requirement for continued enrollment in the laboratory schools. Pupils are also required to observe the Utah compulsory school attendance law.

Enrollment in each grade of the laboratory schools is limited to the number of pupils for whom adequate educational services can be provided. Pupils are accepted on the basis of established criteria which are important in carrying on the unique functions of the school. Applications for admission should be filed with the assistant director of operations between January 1 and June 1 preceding enrollment in September. Forms for this purpose are available in his office.

Pupils who are admitted to the laboratory schools may continue their education through the graduate program of the university providing established academic and behavioral standards are maintained. They have many of the advantages of the university plant, such as use of libraries, gymnasiums, laboratories, shops, athletic fields, and auditorium.

Elementary Laboratory Schools

The Elementary Laboratory School covers the range from the kindergarten through the sixth grade.

A staff of well-qualified instructors, together with the facilities offered by the university and the assistance given by special supervisors, provide a wide range of experiences for the children. Much attention is given to individual needs and interests and to the development of special abilities of pupils. The elementary program includes instruction in modern language and instrumental music.

The school serves as a laboratory for educational research and experimentation, and is a center for the preparation of teachers in elementary education.

Secondary Laboratory School

Pupils completing the first six grades are regularly transferred to the junior high school. Here departmentalization begins, permitting variations in courses and a wide range of contact with expert instructors. Broad exploratory experiences are provided.

Pupils completing the three years of work prescribed for the junior high school are admitted to the senior high school.

Pupils graduating from the senior high school are expected to complete seventeen units in three years. Equal credit is given in all subjects for equal amounts of time spent in the classroom. One unit of credit is granted for each class which meets five days per week for thirty-six weeks. All required classes must be included in the program of each pupil who qualifies for graduation.

A rich program of athletic and social activities is provided for secondary school pupils under the direction of the faculty and the studentbody organizations. Pupils participate in interscholastic athletics, speech arts, music, and commercial competition. High school students also have the advantage of participation in selected activities sponsored by the university.

Brigham Young University High School is a member of the Utah High School Activities Association, meets all requirements of the Utah State Board of Education, and is accredited by the Northwest Association of Secondary and Higher Schools.

PROGRAM OF STUDIES

Junior High School. It is the philosophy of the junior high school that certain areas of work should be organized around student needs into a "core" program. By having students remain with one teacher for a two-hour period, it is believed that greater strides may be made in guiding the pupil in solving his personal problems, in integrating his school activities with those which he carries on in the community, in developing a wholesome personal outlook, and in developing basic skills and acquiring factual knowledge commensurate with his level; therefore, "core" classes have been set up in the seventh and eighth grades.

7th Grade subjects:

Required: "Core" curriculum (English and social studies), mathematics, general science, art, speech, physical education, and general music.

8th Grade subjects:

Required: "Core" curriculum (English and social studies), mathematics, general science, art, vocal music, industrial arts and homemaking.

9th Grade subjects:

Required: English, social studies, general science, algebra or functional mathematics, homemaking or industrial arts.

Senior High School. Students desiring to graduate from the B.Y.U. High School and to qualify for college entrance at the same time must complete the following requirements:

1. A total of seventeen units is required in grades 10, 11, and 12. A unit of credit is given for any subject that is taken five times a week for thirty-seven weeks.
2. Two years of physical education. Students who have some physical disability may be excused from this requirement upon presentation of a statement from their family physician attesting to this fact.
3. One unit of mathematics selected from algebra, geometry, or general mathematics.
4. Three units of English.
5. American history and government and either problems of democracy or development of civilization.
6. One unit selected from chemistry, physics, or biology.
7. While at Brigham Young University High School, the prescribed courses in religious education must be followed satisfactorily by all students. One religion class each year is required.
8. The following courses are suggested and recommended but not presently required:

Music or art— $\frac{1}{2}$ unit

Homemaking or industrial arts— $\frac{1}{2}$ unit

Senior students who have demonstrated outstanding academic ability may be permitted to enroll in "honors" classes at the high school and/or selected Home Study courses offered by the university Extension Division.

SENIOR HIGH SCHOOL COURSES

Subject	Days		Year Taken	Credit
Art I and II	5	Elective	10-12	1 unit
Industrial Arts I and II	5	Elective	10-12	1 unit
Business				
Shorthand, Beginning	5	Elective	11-12	1 unit
Typing I and II	5	Elective	10-12	1 unit
Bookkeeping	5	Elective	10-12	1 unit
Office Practice	5	Elective	11-12	1 unit

Language Arts

Composition, Grammar and American Literature	5	Required	12	1 unit
Grammar and Literature	5	Required	10	1 unit
English Literature	5	Required	11	1 unit
Publications	5	Elective	10-12	1 unit
Honors English	5	Elective	10-12	1 unit

Homemaking

Homemaking I and II	5	Elective	10-12	1 unit
Home Living	5	Elective	10-12	1 unit
Adv. Foods and Clothing	5	Elective	11-12	1 unit

Language

French I and II	5	Elective	10-12	1 unit
Spanish I	5	Elective	10-12	1 unit

Mathematics

Algebra I and II	5	Elective	10-12	1 unit
Geometry	5	Elective	10-12	1 unit
Functional Math	5	Elective	10-12	1 unit
"Honors" Mathematics	5	Elective	10-12	1 unit

Physical Education

Physical Ed. (Girls) 1 and 2		Required	10-12	1 unit
Physical Ed. (Boys) 1 and 2		Required	10-12	1 unit

Religious Education

Old Testament	5	Required	9-10	1 unit
New Testament	5	Required	10-11	1 unit
Church History	5	Required	11-12	1 unit
Book of Mormon ("Honors")	5	Elective	12	1 unit

Music

Chorus	5	Elective	10-12	1 unit
Band	5	Elective	10-12	1 unit

Science

Physics	5	Elective	11-12	1 unit
Chemistry	5	Elective	11-12	1 unit
Biology*	5	Elective	10-12	1 unit
"Honors" Science	5	Elective	12	1 unit

Social Science

American History and Gov't.	5	Required	11-12	1 unit
World History**	5	Elective	10-12	1 unit
Problems in Democracy**	5	Elective	11-12	1 unit
"Honors" History	5	Elective	12	1 unit

Speech

Speech	5	Elective	10-12	1 unit
Advanced Speech	5	Elective	11-12	1 unit
Speech Workshop	5	Elective	10-12	1 unit

*These subjects are only partially elective as one of this group must be taken.

**One of these courses is required in addition to American History and Government.

College of Family Living

Jack B. Trunnell, Dean (1206 SFLC)

The following departments are in the College of Family Living:

Clothing and Textiles
Economics and Management of the Home
Food and Nutrition
Homemaking Education
Housing and Design
Human Development and Family Relationships

Objectives. The program of the College of Family Living is designed to provide educational experiences which will help young men and women

- (1) to understand themselves and their abilities,
- (2) to establish attractive and happy homes in which primary consideration is given to the enrichment and strengthening of family life,
- (3) to accept the responsibilities of family members as citizens and members of the community,
- (4) to earn a living in a profession related to homes and families, and
- (5) to encourage participation in the programs of research in each of its departments.

These aims are based upon the conviction that abundant living evolves primarily from the happy family. Such objectives have their roots deep within the culture of the L.D.S. people. Family life is the matrix of spiritual development, the foundation of society, and the basic unit of the Kingdom of God.

Many courses are particularly adapted to meet the needs of men and women who do not carry major work in a department of the college. A number of courses in the Department of Human Development and Family Relationships serve to help fulfill the university program in general education for the social science group. Every student is urged to elect at least one such course in order that he may become a better family member.

Scope. The experiences of family living involve the discoveries of science, the insights of the humanities and the fine arts, the inspiration of religion, and the enjoyment of recreation, all taught in other colleges of Brigham Young University. Their listings are used liberally in order to integrate and organize educational experiences which will increase students' capacities to participate in effective family and community living.

To the extent that the needs of today's families are understood, course offerings in this college are related to those needs and are prepared for both men and women students. Within the framework of the curriculum the entire cycle of family life from infancy to old age is considered. The expectancy of early marriage and parenthood and of large families is faced and discussed. The importance of the role of men as partners in homemaking is increasingly emphasized. The prolonged period in the lives of men and women after children have been reared becomes part of the thinking and planning of the college student. The many patterns of family living, each with its own economic level, educational background, and cultural heritage, are considered with a view toward the contribution each can make to our families. The important task of preserving and enhancing the integrity of the family is given a primary place. Educational experiences are directed toward the realization of increased understanding of human development and human relationships and toward the attainment of increased maturity in personal, family, and community living. The ever-expanding demands made on men and women to participate and assume leadership of the community are emphasized.

Excellent facilities for research into selected areas of family living are available within the college. A growing program of laboratory investigation allows study of behavior on the one hand and study of fundamental physiology and

nutrition on the other. With the ever-increasing awareness that good physical health is dependent in large measure upon good mental health, and the latter in turn dependent upon good family life and spiritual health, opportunities for discovery in these areas are unlimited.

Professional Opportunities. The course offerings are also designed to supply the factual material necessary to prepare students for selected professional service: teaching in specialized areas within educational institutions; working in community welfare agencies, departments of recreation, youth organizations, and old age programs; working in commercial test kitchens, in home service centers, and in the field of nutrition; or working in consumer education, in extension service as county home agents, or in journalism related to the home and family. Those students not majoring in the college, but preparing for careers in medicine, law, business—or, in fact, any career in which interpersonal relationships are of primary importance—may profitably incorporate courses in this college.

Informal Instruction. The College of Family Living offers valuable consultant-teaching service to men and women who request assistance with problems of grooming; etiquette; budgeting; care, selection, remodeling, or construction of clothing; daily tasks of management; use of equipment; and purchase and preparation of food for themselves or groups. The college operates a laboratory office in the basement of Rogers Hall. Thus, through out-of-class informal experiences, men and women are helped to meet practical problems involved in personal and group living and in personal and social development.

Majors. A student may complete a major in the Departments of Clothing and Textiles, Food and Nutrition, Homemaking Education, or Human Development and Family Relationships, or in the combined departments of Economics and Management of the Home and Housing and Design by selecting 30 or more credit hours of appropriate work.

Through the selection of specified courses, a student may become certified for the teaching of homemaking or for teaching at the elementary level.

A non-departmental major-minor composite is offered in the broad field designated as Family Living, General; the completion of a minimum of 60 hours of course work distributed among five departments is required. Frequently, students who are not certain as to their major interest begin their work in the general field but select a departmental major by their sophomore year or earlier.

Suggested programs for departmental majors and for the Family Living, General program will be found listed among the departments. These programs are such that their successful completion will help prepare a student to assume the responsibilities of marriage and also to earn a living in a field related to family living.

All students registered in the college should elect Family Living 101 during Autumn Quarter for the freshman year.

Affiliation with the Merrill-Palmer School. The college is affiliated with the Merrill-Palmer School of Detroit, Michigan. This school, established 35 years ago when little endeavor or experience in education for home and family life existed, has the underlying philosophy expressed in a quotation of Lizzie Merrill Palmer:

"I hold profoundly the conviction that the welfare of any community is divinely, and hence inseparably, dependent upon the quality of its motherhood, and the spirit and character of its home."

At present we are privileged to send to the school several students a year. Before he leaves campus, each student is advised by his counselor. At the school a staff adviser assists the student to plan a course of study whereby his former experiences are augmented and effectively related to his personal needs and potentialities. A basic course having a multi-disciplinary approach is focused

on the development of the individual with special reference to the contribution made by the family. Considered also are changes taking place in the social, economic and political world which affect marriage and the establishment and maintenance of families.

Classes and discussion groups are small. Observation and experience are a vital part of the program. Among the special fields represented by the staff at Merrill-Palmer are psychology, sociology, nutrition, gerontology, child development, nursery education, family life and adult education, marriage counseling, home economics, and religion.

The entire program is intercultural, and the student body is a cross-cultural group coming from many foreign lands and from all parts of the United States. A student from Brigham Young University would therefore have to be a worthy representative of the Church. He would also need to have an A-B grade record. Credits earned are allocated to the subject-matter fields by the Brigham Young University in terms of its requirements.

Graduate Study. A student who has completed all requirements for the bachelor's degree is classed as a graduate student. The work of all graduate students is under the jurisdiction of the dean of the Graduate School. The College of Family Living provides opportunities for work toward three Master of Science degrees: one in human development and family relationships, one in foods and nutrition, and one in the general field of family living. The Doctor of Philosophy degree may be obtained in the field of human development and family relationships.

College Clubs: Home Economics Club; Gamma Phi Omicron. The Home Economics Club is affiliated with the Utah and the American Home Economics Associations. Membership is extended to all students interested in home economics. The goals of the club are to work together and share with others enthusiasm for happy home living, and to promote friendly association between the faculty of the College of Family Living and all students in the university.

Gamma Phi Omicron is a local honor organization of upper class women in the College of Family Living. Membership in the Home Economics Club and a high scholastic average are prerequisites to members. Its purposes are to foster a professional attitude and to establish a circle of friendship among its members, promote wholesome group living, and participate actively in the affairs of the college, the university, and the community.

Scholarships and Awards. University scholarships covering tuition for from one to three quarters are granted annually by the university to undergraduate students of outstanding academic ability. Grants-in-aid are awarded to deserving students of good academic ability who have economic need. All applications are made to the chairman of the B.Y.U. Committee on Scholarships and Awards.

A Home Economics Club Award of approximately \$135.00 toward the combined winter and spring tuition is available each year to a woman student in the college who is an active member of the club and who has been of service to it for at least part of two academic years. Applications must be made by March 15th to the College Scholarships and Awards Committee on forms available in the office of the dean of the college. Election will be made by club members by ballot. Applicants must have a grade-point average of 2.65 (A is 4) or above with no D on the record; must have a total credit at the time of application of no more than 115 credit hours and must have completed physical education, 3 hours; English, 9 hours (6 if this fulfills the freshman English requirement); chemistry, 9 hours; psychology, 5 hours; bacteriology, 4 hours; food and nutrition, 4 hours; and Health 130, 2 hours.

Timpanogos Federated Women's Club Scholarship. The sum of \$100.00 toward tuition will be awarded to a junior of high scholastic standing in the college, good character and professional promise, and whose home is in the Timpanogos area.

Gamma Phi Omicron Alumnae Scholarship. The sum of \$100.00 toward tuition will be awarded to a deserving junior who is a member of Gamma Phi Omicron, has a scholastic average of 3.0 or higher, is in financial need, and shows professional promise.

Elizabeth Cannon Sauls Scholarship. The sum of \$25.00 will be awarded to a deserving junior in the College of Family Living. The award is based on good grade point average, need, good character, and professional potential.

Senior Awards. For many years recognition awards have been given annually to members of the senior class:

The **Leah D. Widtsoe** silver loving bowl to a senior of sterling character who has made marked progress during her years of study, and who at the same time has rendered service to her classmates, her college, and the university.

The **Hazel Noble** medal to an outstanding graduating senior with fine womanly qualities and commendable professional attitude who applies to her daily living the knowledge acquired in her studies in the college.

The **Gamma Phi Omicron** award to a senior of high scholastic standing and good character who, as indicated by her accomplishments and services during her college career, shows promise of becoming a credit to her college and her profession.

College of Fine Arts

Gerrit de Jong, Jr., (240 C)

The following departments are in the College of Fine Arts:

Art

Music

Speech and Dramatic Arts

The policy of the university has always provided for a liberal patronage of the fine arts. The organization of the College of Fine Arts in 1925 was the result of desire to offer students greater opportunities for better coordinated academic and professional growth.

With exceptionally well-prepared faculties, who have received the benefits of extended study in recognized schools and art centers, and adequate physical equipment in all departments, the College of Fine Arts has become favorably known for the artistic and academic work done under its direction.

Any course offered in this college that leads to the baccalaureate degree is the cultural equivalent of other college courses offered in the university, differing from them mainly in respect to the emphasis placed on the study of the fine arts.

The Art Department offers curricula in painting, sculpture, crafts, interior design, commercial art, graphics, and art for teachers in the elementary and secondary schools.

The Music Department lists courses in theory of music; musicology; applied music, both instrumental and vocal; music education for elementary and secondary school teachers; and general music for non-music majors.

The Department of Speech and Dramatic Arts lists courses of study in public address and forensics, radio and television, theatre and dramatic arts, speech and hearing rehabilitation, speech education for elementary and secondary school teachers, and general speech for non-majors.

MAJORS AND MINORS

Majors are selected from the work offered in the above-mentioned departments; minors may be selected from them or from other departments in the university which offer allied work.

General College

Wayne B. Hales, Dean (280 ESC)

The General College is separated into three areas:

- The Division of Provisional Registration
- The Technical and Semi-Professional Institute
- The Department of Industrial Education

The General College has been added to the academic structure of Brigham Young University to meet more adequately the changing educational demands of the university and to achieve more perfectly the objectives of the university. The General College works to help students develop responsible citizenship in the Church and state, to acquaint them with their cultural heritage, and to lay the foundations for useful and productive lives in a democratic society. To achieve these objectives, the General College has been organized to take care of the educational needs of the following types of students.

Each year a large number of students come to the university undecided on a major field. These students will register in the **Division of Provisional Registration**. In this division the student is assigned a registration adviser who serves as his adviser on academic problems during the one or two years he is in Provisional Registration. These students will pursue outlined courses in general education. At the end of one or two years of study, they must select a major, transfer to the appropriate college, and continue studies toward a baccalaureate degree.

Ten curricula are provided for students who may have interests in given fields. These curricula are as follows:

BIOLOGICAL SCIENCE, PRE-MEDICAL AND PRE-DENTAL

A student having an interest in the fields of botany, bacteriology and zoology or the pre-dental and pre-medical areas should register for the following courses. He may transfer to the major of his choice at any time during his freshman or sophomore year and continue his work toward a baccalaureate or other professional degree.

Freshman Year				Sophomore Year			
Course	Credit Hours			Course	Credit Hours		
	A	W	S		A	W	S
Religion	2	2	2	Religion	2	2	2
English 111, 112, 113	3	3	3	Physics 111, 112, 113	5	5	5
Physical Education	1	1	1	Chemistry 221	5		
Chemistry 111, 112, 113	5	5	5	Social Science or Humanities	5	5	
Mathematics 111, 112, 231 ..	5	5	5	Zoology or Botany or Bact. ..	5	5	
Health 130			2	History 170			5
	16	16	18		17	17	17

BUSINESS

The following is a suggested two-year program for students who have a general interest in business but are undecided about the particular area in which to major. With the exception of English composition and physical education, which must be taken the first year, the freshman and sophomore courses shown may be taken interchangeably. Students may transfer to the College of Business at any time.

Freshman Year				Sophomore Year			
Course	Credit Hours			Course	Credit Hours		
	A	W	S		A	W	S
English 111, 112, 113	3	3	3	Accounting 201, 202	5	5	
Religion	2	2	2	Business Mgt. 203			5
Physical Education	1	1	1	Mathematics 101**	5		
Physical Science***	3	3	3	Accounting 230, 231		3	3
Economics 101, 102*, 274	5	3	5	Religion	2	2	2
Biological Sciences	3	5		Humanities	3		5
English (literature)			3	History 170		5	
	—	—	—	Social Science	3		
	17	17	17	Health 130		2	
				Elective			3
					—	—	—
					18	17	18

*Economics 111, 5 hours credit, may be taken in place of Economics 101 and 102.

**With 1½ years of high school algebra this course may be omitted.

***Any of the courses listed under Physical Science of the General Education Requirements will be approved.

EDUCATION

A student having an interest in elementary education should register for these courses. At the end of his freshman or sophomore year he may transfer to the College of Education without loss of credit and continue his studies toward a Bachelor of Science or Arts Degree.

A student having an interest in secondary education should register for the appropriate courses in other areas of Provisional Registration. For example, a person wishing to teach biological science in the secondary schools should register in courses under biological science, pre-medical, and pre-dental. Or, if a person wishes to teach industrial arts, he should register in the Department of Industrial Education. At the end of his sophomore year, he may transfer to the appropriate college or to the College of Education without loss of credit and continue his studies toward a Bachelor of Arts or Science degree.

Freshman Year				Sophomore Year			
Course	Credit Hours			Course	Credit Hours		
	A	W	S		A	W	S
Religion	2	2	2	Religion	2	2	2
English 111, 112, 113	3	3	3	Physical Education 375			
Physical Education 181, 182,				or 376	2		
and elective	1	1	1	Instruction 324 or 325	2		
Health 130			2	History 366		3	
Geology 101, 102		4		Health Education 361		3	
Zoology 105			5	Physical Science Elective*		3	
Speech 121			3	History 360			3
Art 110			2	Sociology 460			3
Social Science Elective*			5	Biological Science Elective* ..			3
Elective			4	Social Science Elective*			3
	—	—	—	History 170			5
	17	18	17	Bacteriology 121			4
				Botany 112			4
				Electives	2	4	2
					17	18	17

*These courses must be selected from those listed under "Arts and Sciences Major for Elementary Teachers," shown above in the section on "Preparation of Elementary School Teachers" in the College of Education.

FAMILY LIVING

Students in the General College may take any courses from the 100 and 200 series in the various departmental offerings for which there are no prerequisites or for which they have already taken the prerequisites. This program is designed to help students prepare for marriage and/or to count toward a baccalaureate degree in the major of their choice. It is not designed as a vocational program.

Freshman Year				Sophomore Year			
Course	Credit Hours			Course	Credit Hours		
	A	W	S		A	W	S
Religion	2	2	2	Religion	2	2	2
English 111, 112, 113	3	3	3	Clothing and Textiles			
Physical Education	1	1	1	255 and 260	3	3	
Health 130			2	Nursing 288		2	
Food and Nutrition 110	4			Psychology 111	5		
Chemistry 101, 102	5	4		H.D.F.R. 210, 211		4	
Clothing and Textiles				H.D.F.R. 160	2		
110, 115		2	3	Housing and Design 120, 135		2	3
Art 110			2	Food and Nutrition 255, 256		4	
Physics 104			3	Food and Nutrition 264, 265			5
Bacteriology 121		4		Zoology 105 and 164	5		
Family Living 101	1			Economics 101			5
	16	16	16		17	17	15

FINE ARTS

The following is a suggested sequence of courses for students who have interests in the fields of art, music, and speech and dramatic arts. At the conclusion of the freshman or the sophomore year, the student should transfer to the College of Fine Arts and continue his work toward a baccalaureate degree.

Sophomore Year				Freshman Year			
Course	Credit Hours			Course	Credit Hours		
	A	W	S		A	W	S
Religion	2	2	2	Religion	2	2	2
Foreign Language, first year	5	5	5	English 111, 112, 113	3	3	3
Psychology 111	5			Physical Education	1	1	1
Sociology 111		5		Health 130		2	
History 170			5	Physical Sciences*	3	3	3
Fine Arts Electives	5	5	5	Fine Arts Electives**	7	5	7
	17	17	17		16	16	16

*Any of the courses listed under Physical Science of the General Education Requirements will be accepted.

**Art 101, 111, 121. Music 101, 102, 105 (or private lessons), 170 (or private lessons or other choral group). Speech 101, 121, 241. It is strongly recommended that a student decide whether or not to major in music not later than the end of his first year.

HUMANITIES

It is anticipated that the student who selects the program suggested below will have a general interest in the field of humanities but will be undecided about a subject in which to major. Completion of this two-year program will fill all general education group requirements and should permit a generous enough sampling of humanities courses to assist the student in selecting a major.

Freshman Year				Sophomore Year			
Course	Credit Hours			Course	Credit Hours		
	A	W	S		A	W	S
English 111, 112, 113	3	3	3	Religion	2	2	2
Physical Education	1	1	1	Foreign Language	5	5	5
Religion	2	2	2	English 250	4		
Humanities 101 or elective in humanities	5	5		Two of the following courses from different areas:			
History 170**			5	Economics 101; Geo- graphy 105 or 110;			
Humanities elective			6	Pol. Sci. 112 or 115;			
Physical Sciences***	5	4		Psychology 111; So- ciology 111 or 112 ..	5		5
Health		2		Biological Sciences		4-5	3-4
	16	17	17	Humanities and Aesthetics		5-6	2-3
						16	16-18 17-19

*Students who anticipate majoring in a foreign language should register for a foreign language during the three quarters of their freshman year and move some of the courses listed to the sophomore year.

**Students who anticipate majoring in economics, history, journalism, or political science, should take History 120 or History 121 or Political Science 110 instead of History 170.

***Any of the courses listed under Physical Science of the General Education Requirements will be approved.

NURSING

Any student who is interested in Nursing and trying to determine her major should confer with the Dean of the College of Nursing or an adviser in the College of Nursing regarding the program and opportunities. Only one year of courses are offered in the General College for those who are interested in Nursing.

Freshman Year			
Course	Credit Hours		
	A	W	S
Religion	2	2	2
English 111, 112, 113	3	3	3
Physical Education	1	1	1
Chemistry 101, 102, 103	5	4	3
Psychology 111	5		
Sociology 111		5	
Zoology 109			5
Food and Nutrition 115			3
	16	15	17

PHYSICAL EDUCATION

The following is a suggested sequence of courses for students who have interests in the fields of recreation, physical and health education, athletics, and youth leadership. At the conclusion of the freshman or the sophomore year, the student should transfer to the College of Recreation, Physical and Health Education, and Athletics and continue his work toward a baccalaureate degree. He should consult the sections of the catalog dealing with those departments for details for majors in health education, recreation, and youth leadership.

Men

Freshman Year				Sophomore Year			
Course	Credit Hours			Course	Credit Hours		
	A	W	S		A	W	S
Religion	2	2	2	Religion	2	2	2
English 111, 112, 113 ..	3	3	3	English (literature)	2	2	2
Phys. Ed. 221, 222, 223	1	1	1	Phys. Ed. 226, 225, 227	1	1	1
Phys. Ed. 224			1	Phys. Ed. 228	1		
Physical Sciences*	3			Phys. Ed. 180, 181, 330	1	1	3
Sociology 111		5		Zoology 164	5		
History 170			5	Food and Nutrition 115		3	
Health 130	2			Physical Sciences*	3	3	
Humanities	5			Psychology 111			5
Minor Subject area		5		Health 121	2		
Bacteriology 121 or Zoo. 105			4-5	Humanities		3	
				Minor Subject Area	2	4	
	16	16	16-17		16	18	17

*Any of the courses listed under Physical Science of the General Education Requirements will be approved.

Women

Freshman Year				Sophomore Year			
Course	Credit Hours			Course	Credit Hours		
	A	W	S		A	W	S
Religion	2	2	2	Religion	2	2	2
English 111, 112, 113	3	3	3	Phys. Ed. 244, 245, 246	2	2	2
Phys. Ed. 241, 242, 243	2	2	2	Phys. Ed. 181, 182, 183	1	1	1
Phys. Ed. 187, 188, 189	1	1	1	Phys. Ed. 180, 160	1	1	
Physical Sciences*	3	3	3	Zoology 105, 164	5	5	
History 170	5			Psychology 111	5		
Health 130		2		Humanities		3	
Humanities		3		Minor		2	
Electives			4	Health Education 362			3
	16	16	15	English (literature)			4
				Electives (P.E.)	1		2
				Elective			2
					16	16	17

*Any of the courses listed under Physical Science of the General Education Requirements will be approved.

PHYSICAL AND ENGINEERING SCIENCES

The following course of study is recommended for one or two years. At the end of either the student may choose a major, transfer into the College of Physical and Engineering Sciences and pursue his education to the completion of Bachelor of Science degree in chemistry, mathematics, physics, geology, or engineering sciences.

Freshman Year				Sophomore Year			
Course	Credit Hours			Course	Credit Hours		
	A	W	S		A	W	S
Mathematics 111, 112, 231*	5	5	5	Physical Education	1	1	1
Chemistry 111, 112, 113	5	5	5	Health 130		2	
Religion	2	2	2	Electives	2	2	
				English 111, 112, 113	3	3	3
					18	18	18

Sophomore Year				Religion	2	2	2
Course	Credit Hours				History 170	5	
		A	W	S			
Mathematics 232, 233, 234 ..	5	5	5	5	Electives (Biology and Humanities)	5	5
Physics 211, 212, 213	5	5	5	5		17	17 17

*Mathematics 101 or third semester in high school is a prerequisite for this series.

SOCIAL SCIENCE

It is anticipated that the student who selects the program suggested below will have a general interest in the social sciences but will be undecided about a subject in which to major. Completion of this two-year program will fill almost all general education group requirements and should permit a generous enough sampling of social science courses to assist in selecting a major.

Freshman Year				Sophomore Year			
Course	Credit	Hours		Course	Credit	Hours	
English 111, 112, 113	3	3	3				A W S
Religion	2	2	2	Religion	2	2	2
Physical Education	1	1	1	Economics 101 or 111..	5		
Health 130	2			Geography 105 or 110	5		
Sociology 111 or 112	5			Pol. Science 111, 112, or 115			5
Psychology 111		5		English (literature)	2-3	2-3	2-3
History 170*			5	Foreign Language or Electives in Humanities	3-5	3-5	3-5
Physical Sciences**	3	3	3	Bacteriology 121 or Botany 101 or Zoology 105	4-5		
Electives		3	3	Biological Sciences	3-4		
				Social Sciences			3-5
	16	17	17				

*Students who anticipate majoring in economics, history, journalism, or political science should take History 120 or History 121 or Political Science 110 instead of History 170.

**Any course listed under Physical Science of the General Education Requirements will be approved.

If a student completes one of these curricula, he may transfer into one of the other colleges of the University without loss of time, credit, or standing and will advance as a junior in the college of his choice without professional handicap.

The same entrance requirements as have been set up for the rest of the university are required in Provisional Registration.

Other students come to the university with a desire to obtain technical training in special fields of engineering, business, and agriculture. To satisfy these needs, the university has established a **Technical and Semi-Professional Institute**. Prescribed semi-professional and technological courses have been organized on a two-year level at the completion of which students will receive suitable terminal certification. Employability of graduates is the major objective of the Technical and Semi-Professional Institute.

Students interested in industrial arts will register in the Department of Industrial Education which will be administered through the General College. A major student in this department is offered a rich variety of courses in drawing,

metalwork, woodwork, and related vocational industrial-educational subjects. A terminal Bachelor of Science degree is granted at the completion of prescribed general education and major and minor requirements.

The same standards of excellence in scholarship and moral behavior will be expected of students in all areas of the General College.

College of Humanities and Social Sciences

Leonard W. Rice, Dean (329 McK.)

The following departments are in the College of Humanities and Social Sciences:

Archaeology
English
Geography
History
Journalism
Languages
Political Science
Psychology
Sociology

The most fascinating study has always been man—what he has done, what he has thought, what he has said and how he has reacted to problems confronting him.

The humanities seek to discover, preserve, and disseminate the best of man's thoughts and creations. The social sciences study the activities and relationships of man: his nature, his power to communicate, his environment, what motivates him, how his activities progress, the institutions he has created, and the important social and governmental problems with which he must deal. The humanities and the social sciences are therefore related disciplines whose purpose is to help man live in the most intelligent and satisfying manner.

The humanities are the study of what man has created, including his language, literature, art, and the record of his activities as revealed in archaeology and history. The social sciences are younger disciplines utilizing the modern methods of science: controlled observation, laboratory experimentation whenever possible, statistics, and analytical reasoning. Their potential significance for a troubled world is tremendous.

There are two large purposes for which the instructional program of the College of Humanities and Social Sciences is designed. One is the provision of a broad and liberal education, to assist those who obtain it to receive in the fullest measure the values to be found in the complex civilization of today and to contribute to the enlargement of those values in an effective and acceptable manner. The other is the preparation of a more limited group as qualified contributors to the discovery of additional truth to add to our present heritage and as capable professional participants in the productive affairs of daily living.

Courses intended to contribute to the first purpose are offered as a service to all students in the university. Career programs for those who choose to do their major work in this college are offered in each department. Advisers stand ready to consult with students in the selection of studies that will contribute most effectively to a broad education and to specialized training in each department.

Pre-Legal Course

There is no single prescribed pre-law program. A student may major in any one of several fields as basic preparation for law school. The prime requisite of a successful lawyer is a well-disciplined mind. It must be readily capable of embracing complex situations—identifying subtle distinctions and appraising arguments. It must be able to weigh opposing considerations and be capable of sustained effort over long periods of time. To produce such a mind, the college schedule should include courses intended to expand the mental powers of a student to the utmost and to bring about precision of thought.

The following important advice given by a leading law school may well be noted by pre-legal students:

"Few ideas are more fallacious or harmful than the notion that it is possible to dawdle through high school and college and then make the adjustment to higher standards promptly upon entering the professional school. Essential habits of concentration and effective methods of study must be acquired and developed during the pre-legal years."

In addition to the courses in general education prescribed by the university, it is suggested that a satisfactory pre-legal course might be selected from the following fields: English, political science, history, economics, accounting, psychology, speech, sociology, and mathematics.

Because of the growing tendency of law schools either to recommend or demand that the entering student have a B.A. or B.S. degree, the pre-legal student should plan his freshman and sophomore programs toward the acquisition of a bachelor's degree.

Hispanic American Studies Major

Supervisor: Lee B. Valentine (341 McKay)

The Hispanic American Studies Program is an interdepartmental program within the College of Humanities and Social Sciences which provides a major or a combined major and minor leading to the A.B. degree; it does not provide a minor alone. The program is designed to meet the professional and cultural goals of persons especially interested in Latin America whose needs are not served by a major in one department. The Language Department offers training in the literature and language of Latin America; the Geography Department, the geography and economy of the area; the Political Science Department, the governments and political institutions. Certain persons who seek employment in business or governmental agencies in Latin America, or who for other reasons are interested in the area, may best prepare themselves professionally by broad study in the literature, language, culture, geography, politics and economy of the region. Such persons may enroll in the Hispanic American Studies Program. They cannot expect to receive the depth in one subject which a conventional major would give them, but the greater breadth and the comprehensive understanding of the area itself will compensate for the sacrifice of depth in a single subject.

Requirements for a major:

- (1) 34 hours in Spanish language courses from the "A" lists given below, 9 of which must be upper division.
- (2) 6 hours of specified upper division courses in Spanish-American or Spanish literature.
- (3) 6 hours of specified upper division courses in each of three of the following subjects: archaeology, geography, history, and political science.

Of the required 58 hours, 33 must be upper division.

Requirements for a major and a minor:

- (1) Completion of the above requirements for a major.
- (2) 6 hours of specified upper division courses from the "A" list of the remaining subject-matter field not included in the major.
- (3) 8 hours from the "B" lists of the six fields; these courses must meet the approval of the supervisor.

Of the required 72 hours for the major and minor, 47 must be upper division.

Following are the courses in the program:

Archaeology

"A" list:

Archaeology 376. Indians of the Americas	Hours 3
--	-------------------

Archaeology 388. Early Peoples of Middle America 3

"B" list:

Archaeology 360. Ancient Civilizations of America 3

Archaeology 455. Archaeology of Middle America 3

Archaeology 465. Archaeology of South America 3

Geography

"A" list:

Geography 420. Latin America 5

Geography 490. Readings 1

"B" list:

Geography 491, 492. Readings 1 each

History

"A" list:

History 351. Colonial Latin America 3

History 352. National Latin America 3

"B" list:

History 334. Spain 3

History 353. Mexico 3

History 498. Special Readings in History Tba

Political Science

"A" list:

Political Science 560. Governments of Latin America 3

Political Science 580. Foundations of National Power
(The Americas) 3

"B" list:

Political Science 498. Directed Readings in Political Science 1-2

Spanish (language)

"A" list:

Spanish 101, 102, 103. First Year Spanish 5 ea.

Spanish 201, 203. Second Year Spanish Reading and
Conversation 3 ea.

Spanish 202, 204. Second Year Spanish Conversation
and Grammar 2 ea.

Spanish 321, 322, 323. Advanced Composition
and Conversation 3 ea.

(In exceptional cases approval may be granted to substitute Portuguese
321, 322, and 323 for Spanish 321, 322, 323.)

Spanish (literature)

"A" list:

Two 3-hour courses chosen from the following series:

Spanish 441, 442, 443. Survey of Spanish Literature and Culture .. 3 ea.

Spanish 451, 452, 453. Survey of Spanish-American Literature
and Culture 3 ea.

(In exceptional cases approval may be granted to substitute either
Portuguese 431, 432, or 433 for one of these two courses.)

"B" list:

Spanish 451, 452, 453. (Any courses in this series not taken to
complete the "A" list above are recommended to be taken
to fill the "B" list.) 3 ea.

Humanities Major

Supervisor: Bruce B. Clark (305 McKay)

For capable students in the humanities whose educational objectives are not met by a conventional major in one department and a minor in another, the college offers an interdepartmental major in the humanities. Students will take, in lieu of a regular departmental major of 45 hours and a minor of 20 hours, 75 hours in art, literature, language, history, and music and will be advised to support these subjects with courses in archaeology, geology, philosophy, and social science. They must also complete 24 hours of a foreign language in addition to the 75. Of the 75 hours, at least 35 must be upper division work.

The educational and vocational goals of most students are best served by a conventional major and minor. A few students, however, may profit from broader training which includes intensive work in five or six of the humanities subjects. Such a program has broad cultural value. Through it students may acquaint themselves with the relationships among the various humanities subjects and obtain a valuable liberal education consisting of substantial, well-balanced work in the broad field of the humanities.

Students contemplating this major should realize that it cannot provide them the depth in a single subject which they will obtain in a major in one subject. They should also consider carefully their vocational goals before entering the program. Students may enter the program only with permission of the supervisor.

Below are listed the specific recommended courses.

1. Courses Recommended for the Major in Humanities:

Hours

- a. Humanities 101. (To be taken in the freshman or sophomore year) 5
- b. Art—at least 12 credit hours selected from the following. Courses preceded by an asterisk are especially recommended:

Art 101. Introduction to Art	2
*Art 111. Basic Design	4
or Art 110. Theory and Practice of Design	2
*Art 303. Art History and Appreciation	3
*Art 304. Contemporary Art	3
Art 305. American Art	3
Art 406. Ancient and Primitive Art	2
Art 407. Medieval Art	2
Art 408. Renaissance Art	2
Art 501. Aesthetics	3

Note: Humanities majors are also encouraged to take at least one or two of the following "skills" courses: Art 121, 122, 227 or 327, 233 or 333, 256 or 356, 259 or 359, 310, 321, 322.
- c. English—at least 20 credit hours selected from the following courses in English, American, and comparative literature. Courses preceded by an asterisk are especially recommended:

English 241, 242, 243. Masters of the Drama	3 ea.
*English 250. Introduction to Literature	4
English 252. Introduction to Poetry	3
English 253. Introduction to Drama	3
*English 282 or 382. Shakespeare	3 or 5
English 331, 332, 333. The English Novel	3 ea.
English 335, 336. The American Novel	3 ea.
English 345. The Spirit of Tragedy in Literature	4
English 356, 357, 358. World Classics	3 ea.
English 359. The Short Story	3
*English 361, 362, 363. American Literature	5 ea.
English 366. Modern Poetry	3

- *English 371, 372, 373, 374, 375. English Literature 5 ea.
 English 376. Twentieth Century English Literature 3
 English 481. Chaucer 4
 English 483. Milton 3
 English 487. Matthew Arnold 3
 English 541, 542, 543. English and American Drama 3 ea.
 English 550. The Criticism and Appreciation of Literature 5
 *English 552, 553, 554. European Literature 5 ea.
- d. History—at least 15 credit hours selected from the following:
- History 110, 111. World Civilization 5 ea.
 History 304. Greek History and Civilization 5
 History 307. Roman History and Civilization 5
 History 312. Renaissance and Reformation (counts also as religion) 3
 History 373. American Intellectual and Cultural Growth 3
 History 503. Literary History of the Greeks 3
 History 509. Literary History of the Roman Empire 3
 History 512. Medieval Thought and Culture 3
 History 528. Modern European Thought and Culture 3
 History 548. Culture of Asia 3
- e. Languages—at least 9 credit hours selected from the following:
- French 431, 432, 433. Masterpieces of French Literature 3 ea.
 *French 441, 442, 443. Survey of French Literature and Culture 3 ea.
 German 431, 432, 433. Masterpieces of German Literature 3 ea.
 *German 441, 442, 443. Survey of German Literature and Culture 3 ea.
 German 541. Lessing 3
 German 542. Schiller 3
 German 543. Goethe 3
 Italian 431, 432, 433. Masterpieces of Italian Literature 3 ea.
 Portuguese 431, 432, 433. Masterpieces of Brazilian and
 Portuguese Literature 3 ea.
 Russian 431, 432, 433. Masterpieces of Russian Literature 3 ea.
 Spanish 431, 432, 433. Masterpieces of Spanish and
 Spanish-American Literature 3 ea.
 *Spanish 441, 442, 443. Survey of Spanish Literature and Culture 3 ea.
 Spanish 451, 452, 453. Survey of Spanish-American Literature
 and Culture 3 ea.
 Spanish 561. Drama of the 20th Century in Spain 3
- f. Music—at least 12 credit hours selected from the following:
- Music 101. A Survey Course in Music 3
 Music 103. Introduction to Music Literature 3
 Music 383. History of Sacred Music (counts also as religion) 2
 Music 484, 485. History of Secular Music 3 ea.
Note: Humanities majors are also encouraged, but not required to take
 at least one or two of the many participation courses offered by the
 Music Department.

2. Supporting Courses in General Education Recommended for the Major in Humanities:

Hours

- a. Archaeology 150. Introduction to Archaeology 4
 Archaeology 221. Peoples and Cultures 4
 Archaeology 310. General Near Eastern and Biblical
 Archaeology (counts also as religion) 3
 Archaeology 318. General Classical Archaeology 3
- b. English 350. The Bible as Literature (counts also as religion) 3
- c. Geography 110. Geography in World Affairs 5
- e. At least 10 hours of religion credit selected from the following:

- d. Geology 103. Life of the Past 3
- Church History 355. World Religions 2
- Philosophy 308. Survey of Philosophy 3
- Philosophy 420. Ethics 3
- Philosophy 424. Problems of Knowledge 3
- Philosophy 426. Types of Religious Philosophy 3
- Philosophy 546. Scholasticism, Humanism, and Mysticism 3
- Philosophy 562. Current Theological Trends 3
- Philosophy 571. History of Ancient Philosophy 3
- Philosophy 572. History of Medieval Philosophy 3
- Philosophy 573. History of Modern Philosophy 3
- Philosophy 574. Contemporary Anglo-American Philosophy 3
- Philosophy 579. Contemporary Continental Philosophy 3
- Philosophy 581, 582, 583. Comparative World Religions 2 ea.
- f. Political Science 301. The Development of Political Thought 5
- g. Psychology 350. Introduction to Social Psychology 3
- Psychology 550. Psychology of Personality 4
- 3. The following Social Science courses which do not carry General Education credit also are recommended:
 - a. Psychology 540. Abnormal Psychology 3
 - Psychology 552. Personality: Culture and Society 3
 - b. Sociology 460. Cultural Anthropology 3
 - Sociology 503. Systematic Sociology I 3
 - Sociology 508. Social Ethics 3

College of Nursing

L. Bernice Chapman, Dean (2240 SFLC)

The basic collegiate program in nursing prepares young men and women as professional nurses qualified to function as leaders of the nursing team and to fill beginning positions in all clinical areas of nursing: maternal and child care, medical-surgical, public health, and psychiatric nursing. It is expected that these nurses will function productively in contributing to comprehensive patient care, prevention of illness, and promotion of health through working with patients and with professional and community groups. The program also endeavors to increase an awareness of spiritual, social, and civic responsibilities and the understanding of human behavior. Nurses so trained will enjoy a more satisfying personal, family and community life, consistent with the philosophy of the Church of Jesus Christ of Latter-day Saints.

The curriculum of the College of Nursing is organized to provide a balance of general and professional education. General education courses which partially fulfill university requirements are given in the first three quarters. In the second year, courses in professional nursing are correlated with general education. Nursing courses predominate in the last two years. Concepts of communications, mental health, pharmacology, nutrition, professional ethics, health teaching, interpersonal relationships, and spiritual values are integrated throughout the program.

The course of instruction covers four academic years and two summer quarters. Clinical practice is a closely supervised laboratory experience with theory courses given concurrently. At the completion of the program the student receives a Bachelor of Science degree and is eligible to take the state examinations for the license to practice nursing as a Registered Nurse and to use the title R.N. She is also eligible for Public Health Nursing Certification.

All instructors are full time university faculty members and have general and professional educational backgrounds consistent with the academic rank they hold. The College of Nursing is accredited by the National League for Nursing Accrediting Service and is approved by the Representative Committee for the Practice of Nursing in Utah.

Requirements

Admission. All applicants must meet university admission requirements. Prospective students are advised to take three and preferably four units of English, one unit of algebra (a unit of geometry is desirable), and a unit of chemistry and/or a unit of biology, preferably both.

A student should register in the College of Nursing in the first quarter of attendance at B.Y.U., but may enroll in one the prescribed courses in the General College and then transfer to the College of Nursing as early as possible. Personal interviews with a faculty member and completion of special forms are required during the first year at the university.

Progression. Continuance in the College of Nursing will be determined by the health records, adaptability to nursing as evidenced by attitudes and skills, and university grades. The grade average requirements are as follows:

- a. First quarter freshman students must make a 1.75 grade average.
- b. Second and third quarter freshmen must make a 2.00 ("C") grade average. Students making a 1.75 to 2.00 average in either the second or third quarter may continue their registration on probation.
- c. The cumulative grade average for freshman students at the end of three quarters must be 2.00. Students making a 1.90 to 2.00 average may continue registration on probationary status during their fourth quarter.

An average grade of "C" (2.00) must be maintained each quarter to remain in the College of Nursing.

Graduation. Candidates for a degree must fulfill the university requirements for graduation. It shall be the student's responsibility to meet these requirements. Courses for the major and minor for graduation are provided in the College of Nursing program.

Advisement

Each student seeking registration in the college has a faculty adviser who will help in the selection of courses and the planning of a schedule. It is desirable to consult with the advisor as early as possible in order to avoid lengthening the program unnecessarily. Sequence courses in chemistry and zoology necessitate beginning the program in the Fall Quarter. The adviser will also check the student's academic progress and help him use the resources of the university to the greatest advantage.

Assistance in program planning during the time the student is determining his major interest is available through the College of Nursing Office.

Transfers. For information on transfers from another college within the university, or admission to the College of Nursing from another institution, the student should consult with the Dean of the College of Nursing.

Fees and Scholarships

Total educational costs are borne by the student. See section titled "University Fees" for a listing of general university expenses. To these the student should add the cost of uniforms. An itemized estimate of the costs to a student in the College of Nursing is available upon request.

The university policy concerning Scholarships for Leadership and Academic standing are applicable to all students in the College of Nursing. After the freshman year, a few special scholarships are available for nursing students with demonstrated financial need.

College Organizations

The Brigham Young University Student Nurses' Association is affiliated with the Utah and American Student Nurses' Association. This is a professional organization for students in the College of Nursing. Membership is extended to all students enrolled in Nursing. The goals of the organization are to promote social, cultural, and educational activities; to foster cooperation and good fellowship; and to maintain the scholastic and moral standards of the university. Regular meetings are held each month alternating between Provo and Salt Lake City. Representatives of the local association attend the state association meetings and the national meetings. Association members have opportunities to develop leadership abilities, acquire professional attitudes and knowledge, and gain friends through working together.

Educational Facilities

Students use the same facilities and have the same cultural opportunities as all other students on the campus. The newest and most effective teaching aids and equipment are provided in the College of Nursing laboratories and classrooms. The facilities utilized for nursing experience change from year to year depending upon the needs of the students and the learning experiences selected by the faculty. At present, clinical experience is provided in the Latter-day Saints Hospital in Salt Lake City, the Primary Children's Hospital in Salt Lake City, Utah Valley Hospital of the Church of Jesus Christ of Latter-day Saints in Provo, Utah State Hospital in Provo, Utah City-County Health De-

partment in Provo, Salt Lake City Health Department, and other civil agencies. The hospitals are approved by the Joint Commission for the Accreditation of Hospitals, which is an organization sponsored by the American Hospital Association, American College of Surgeons, American Medical Association, and American College of Physicians.

The Latter-day Saints Hospital in Salt Lake City has a capacity of 539 adult beds and one hundred bassinets. It provides clinical fields for the practice of medical, surgical, operating room, obstetrics, and pediatric nursing.

The Primary Children's Hospital in Salt Lake City, with a bed capacity of seventy-two, including an isolation unit of twelve beds, provides experience in the care of the child.

The Utah Valley Hospital of the Church of Jesus Christ of Latter-day Saints has a current capacity of 154 beds and thirty-six bassinets. At the present time these facilities are used by the college for the practice of beginning nursing skills.

The Utah State Hospital in Provo, with a bed capacity of slightly more than one thousand, provides experience in psychiatric nursing.

The Utah City-County Health Department and the Salt Lake City Health Department provide a generalized public health nursing program and offer field experience in nursing.

College of Physical and Engineering Sciences

Armin J. Hill, Dean (294 ESC)

The college is divided into nine departments:

- Air Science
- Chemical Engineering Science
- Chemistry
- Civil Engineering Science
- Electrical Engineering Science
- Geology and Geological Engineering Science
- Mathematics
- Mechanical Engineering Science
- Physics

The Department of Air Science is under the direct supervision of regular officers of the United States Air Force. A description of the activities of this department and the requirements for entrance and graduation are given in the section on Air Science under List of Courses.

REQUIRED HIGH SCHOOL PREPARATION

A student enrolling in the College of Physical and Engineering Sciences will find it necessary, in order to complete the prescribed curricula without loss of time, to have successfully completed the following high school courses or their equivalents:

3 units of English

3 units of mathematics which include at least one unit of plane geometry and one and one half units of algebra with additional course work in algebra, trigonometry, or solid geometry strongly recommended.

1 unit of physical science which should be either chemistry or physics.

A student who has not met these requirements may make up his deficiencies by enrolling in special courses designed for this purpose, or by successfully passing an examination designed to show that he has sufficient understanding of subject matter to carry his regular college courses satisfactorily. He should recognize that the time required to complete his college program will probably be extended by the length of time necessary to make up these deficiencies. A student who has not completed these recommended courses by the time he graduates from high school may complete them through home study courses or other courses offered by the Brigham Young University Extension Service. Information on these courses will be sent on request.

Upon enrollment, a student who has the necessary units of high school mathematics will be given a placement test. If his high school training is found deficient, he may be required to take extra remedial work. On the other hand, if this test shows unusual proficiency, he may be excused from taking some of the more elementary college mathematics.

A student enrolling in either Chemistry 105 or Chemistry 111 will be given a placement test designed to assist in assigning him to a suitable section of these courses. Deficiencies revealed by these tests may indicate the need to take special remedial work in chemistry before beginning the regularly prescribed program.

PHYSICAL SCIENCES

The four departments in the physical sciences offer a four-year course leading to the degree of Bachelor of Arts or Bachelor of Science. Candidates for graduation in these departments must meet the general university requirements for such degrees and must also meet the special requirements which are outlined in each department.

The majors offered in these departments leading to a four-year degree are in chemistry, chemistry teaching, geology, mathematics, physics, pre-dental chemistry, and pre-medical chemistry.

ENGINEERING SCIENCES

A five-year course in geological engineering science, given in the department of Geology and Geological Engineering Science, leads to a degree of Bachelor of Engineering Science in Geological Engineering. Similar courses are offered in the Chemical Engineering Science, Civil Engineering Science, Electrical Engineering Science, and Mechanical Engineering Science Departments, leading to degrees in these areas.

A student completing the prescribed course of study in engineering science will receive a broad and comprehensive training in engineering in addition to the general and religious education given to all undergraduate students at Brigham Young University.

A student must have received an average grade of "C" or better in calculus and physics before being admitted as a regular third-year engineering student. A student who has not attained this average but feels he has the qualifications for undertaking engineering work may petition the department for special consideration. If he is admitted, it will be on a probationary status subject to a continual review. If his work subsequently proves unsatisfactory, he will be dropped from the department.

REQUIREMENTS FOR THE BACHELOR OF ENGINEERING SCIENCE DEGREE

To obtain the degree of Bachelor of Engineering Science, the student must fulfill the same general educational requirements which apply to the BS degree conferred by the Brigham Young University. In addition he must complete the required courses in one field of engineering as described under the respective departmental headings. A total of 245 credit hours is required.

Students who complete the AFROTC program and who are candidates for the five-year degree may substitute three hours of air science for three hours of required physical education. They may also substitute three hours of air science for any of the general education requirements.

College of Recreation, Physical and Health Education, and Athletics

Milton F. Hartvigsen, Dean (204 SFH)

The following departments are in the College of Recreation, Physical and Health Education, and Athletics:

- Health Education (and Safety)
- Intercollegiate Athletics
- Physical Education—Men
- Physical Education—Women
- Recreation
- Youth Leadership

The following additional areas are given special attention:

- Dance
- Intramural Sports
- Pre-Physical Therapy

This college, unique in American universities, has two significant contributions to make: service and development of leadership.

Outstanding in its services are those functions which contribute to student life. The physical education program provides vigorous participation in specific physical activities which are part of the cultural heritage of American youth. Basketball, dance, skiing, swimming, tumbling, football, field sports, gymnastics, softball and other activities provide opportunity for development, expression, and normal participation.

Those students with specialized skills in athletics are encouraged by well-coordinated programs in intramurals and in intercollegiate athletics. Through affiliation with the Mountain States (Skyline) Conference, there are opportunities for competition in basketball, football, golf, wrestling, track, baseball, tennis, and gymnastics. Varsity squads frequently make tours across the country meeting teams of other universities.

While opportunities for leadership by educated men and women are always unlimited, the demand is particularly high for those whose professional areas lie within this college. Professional training is emphasized in these major fields: recreation, youth leadership, physical education, and health education. Certification for teaching in Utah may be completed and certification for teaching in other states may be arranged readily. Dance and pre-physical therapy are given attention as areas in which students may specialize.

Brigham Young University is the first university to offer a major in youth leadership. The program is two-fold: the training of men for professional scouting and the preparation of men to serve the church and community in youth leadership capacities.

Brigham Young University alumni have gone to all points of the globe and have actively guided communities and church members to the ends of abundant and wholesome living. The Church of Jesus Christ of Latter-day Saints, through its beliefs and its teachings, has developed a real heritage in health practices and in the family, church, and community recreation. The Brigham Young University, in harmony with the objectives of the Church, plans not only for participation by its members, but for active and exemplary leadership by them. It is a goal of this college to help achieve this.

Department of Recreation. This department has a number of basic functions in fulfilling its responsibility to the students, the university, the Church, and the nation. Among the responsibilities specifically recognized are (1) to prepare professional recreation leaders, (2) to qualify voluntary leaders for church and community service, and (3) to provide and supervise recreational activities for students and faculty. To meet these responsibilities, this depart-

ment has developed an expanded curriculum and secured many new facilities; others are being planned for the immediate future and a highly trained staff is being assembled.

The general purpose of the expanding intramural program is to afford all students the opportunity to take part in a well-organized program which includes a wide range of activities. An extensive program for both men and women is provided.

Departments of Physical Education. These departments, one for men and one for women, work together in providing (1) service courses, (2) professional training for prospective teachers of physical education and athletic coaching on the undergraduate and graduate levels, and (3) special curricula in dance and pre-physical therapy.

Physical education is planned to develop organic power, physical fitness, skill in activities, and enthusiasm for useful and desirable pursuits during leisure time throughout life. Its program is also planned to develop social habits and attitudes which will prepare students for leadership roles in college, church, family, and community life. Many courses are offered on a coeducational basis.

Department of Youth Leadership. The objectives of the Department of Youth Leadership are two-fold: (1) to train college men in the basic knowledge and skills of the scouting program to the end that they can serve better their church and the community in which they live, and (2) to provide training for prospective professional career men in youth leadership for the Boy Scouts of America and other allied organizations.

The need for trained youth leaders is greater now than at any time in the history of the world. The increase of population can only make this need greater. It is the sincere hope of the department that each male member of the Brigham Young University student body will avail himself of this specialized training in order that he may be prepared to help either his church as a volunteer or his nation as a professional scout.

Department of Health Education. Emphasis is placed on the educational aspects of health including safety and driver education as well as the health sciences. This department functions in the promotion of proper health attitudes and practices. It also cooperates with the home, university health center, physicians and dentists, public health departments, and other groups which have responsibilities in the promotion of health. The health curriculum deals primarily with health instruction; stress is placed on personal hygiene, sanitation, nutrition, and personal safety practices. Courses are offered for all students and for teachers working toward certification in public schools of the state.

Department of Intercollegiate Athletics. Brigham Young University is a member of the Mountain States (Skyline) Conference and the National Collegiate Athletic Association. The school competes in all sports sponsored by the conference.

The athletic program at Brigham Young University serves as a vital educational training ground and laboratory dedicated to teaching young men important individual traits which will better enable them to perpetuate the American tradition. The program is designed to develop such characteristics as capacity to lead and direct, respect for discipline and authority, social and moral understanding, ability to act effectively under stress, capacity for self-discipline in the interest of accomplishment, and determination to overcome obstacles. Individual and team play promotes cooperation, sportsmanship, health, strength, and bodily vigor in the participants.

College of Religious Instruction

David H. Yarn, Jr., Dean (222 S)

The following departments are in the College of Religious Instruction:

- ✓Bible and Modern Scripture
- Biblical Languages
- ✓L.D.S. Theology, Church Organization and Administration
- History and Philosophy of Religion
- Religious Education

This college administers all religious instruction which is sponsored by the university.

It has always been the view of the Church of Jesus Christ of Latter-day Saints that in the training of its youth there should be a proper integration of moral and religious values with secular knowledge. From its inception Brigham Young University, firm in the belief that no life is full and complete unless established upon a sound ethical and religious basis, has offered courses in religion.

General Education Requirements in Religion

Freshman and sophomore students must obtain a total of twelve hours' credit in the following areas:

Book of Mormon: Scripture 111, 112, 113

Church History 131, 132, 133

Missionary Training: L.D.S. Church Administration 131, 132, 141, 142, 143

New Testament: Scripture 123, 124, 125

Theology 101, 102, 103

Theology 104, 105, 106

Each of these courses carries two credit hours per quarter with the exception of Church Administration 131 and 132 each of which carries five. It is recommended that a student follow all three courses of the sequences which are elected.

Juniors and seniors must obtain a minimum of six hours of upper division credit from the offerings of the College of Religious Instruction which are not cross referenced from other departments of the university. The remaining six hours of credit to fill the university requirement for graduation of twenty-four hours of credit in religion (or two hours per quarter for every quarter in residence up to 24 hours) may be elected either from among the courses carrying cross-reference credit or from the other offerings of the College of Religious Instruction. For courses offered by other departments of the university from which students may receive a maximum of six hours of religion credit see the section on Requirements for Graduation.

All transfer students ranking as juniors and all returned missionaries are not only permitted but are expected to elect upper division courses in religion. Also, no more than one-fourth of the religion credit elected by transfer students may come from courses carrying cross-reference credit.

Graduate Studies in Religion

The College of Religious Instruction offers training leading to the Master of Arts, Master of Science, Master of Religious Education, and Doctor of Philosophy degrees. A student must have adequate preparation on the undergraduate level before beginning work leading to one of these degrees. The central committee of the graduate faculty of religion will determine if the student is properly prepared.

Each graduate student must fill all the general regulations and requirements for advanced degrees as outlined by the Graduate School. **The responsibility of knowing and fulfilling these regulations and requirements rests with the student.**

The College of Religious Instruction offers courses for graduate work in History and Philosophy of Religion, Bible and Modern Scripture, Biblical Languages, and Religious Education. A student working toward the master's degree may

elect a major in any one of these fields. The Doctor of Philosophy degree, however, is offered at present only in History and Philosophy of Religion, and Bible and Modern Scripture. A candidate for a doctorate must elect either one or two minor fields, in consultation with his advisory committee.

Master's Degree

Before a student is admitted on a degree-seeking basis, the central committee of the graduate faculty of religion will carefully study and evaluate his preparation and fitness for a graduate program. After acceptance, the student must select his advisory committee, in consultation with the central committee, and must acquire at least 23 quarter hours of formal course or seminar work in his major field and 15 quarter hours of formal course or seminar work in his minor field; write an acceptable thesis embodying the results of research under faculty supervision; and successfully pass an oral examination.

Doctor of Philosophy Degree

Requirements for the Doctor of Philosophy degree either in the field of History and Philosophy of Religion or in the field of Bible and Modern Scripture are as follows: The student must complete, with distinction (B grade or better), each of the core courses specified below. Inasmuch as many of the core courses are offered at the undergraduate level, the student may become proficient in these fields of knowledge before commencing his graduate studies. A demonstration of such proficiency through examination will make it unnecessary for the student to repeat a given course or courses as part of his graduate program.

The student must achieve a thorough mastery of his major, minor, and related fields, a program which will entail at least 60 quarter hours of course work. Part of this requirement may be included in the required core courses. The student will plan and determine his course work in consultation with his advisory committee. A student who intends to specialize in either field of doctoral studies will be required to demonstrate proficiency in the language or languages essential to research in his chosen area.

Upon completion of two years of graduate study in the doctoral program, the student must pass comprehensive written and oral examinations. These examinations will measure the student's maturity both in the core subjects and in his specialized field. They must be taken not later than two quarters before the degree is awarded. Successful completion of these examinations admits the student to candidacy for the doctor's degree. Should the student fail the examinations, the question of whether or when he may repeat them will be determined by his advisory committee in consultation with the central committee. In no case will these examinations be repeated earlier than six months after failure.

The candidate must select a topic in consultation with his advisory committee and write a satisfactory dissertation embodying the results of original research. Thereafter, the candidate must pass an oral examination, at which time he must publicly defend his dissertation before a formally appointed committee.

"Core" courses. Seventy-four quarter hours of certain fundamental "core" courses, or their equivalents, are required of every candidate for the doctorate in religion. These include History and Philosophy of Religion 308, 310, 425, 426, 531, 532, 533, 571, 572, 573, 581, 582, 583, 611, 612, 613, 632, 651, 653; Bible and Modern Scripture 601, 621, 651, 652, and 653.

Graduate School

General Information

PURPOSE

The Graduate Division of Brigham Young University was established as an administrative unit in 1922, 47 years after the founding of the Brigham Young Academy in 1875. The objective of graduate study was then stated in these terms: "The essential aim . . . is to develop the power to do independent work and to encourage the spirit of research. Each candidate is expected to possess a broad general knowledge of his major subject with less detail in the case of his minor subjects."

Educational institutions such as Brigham Young University reflect the aspirations and problems of the American people. They carry the ideals, dreams, and hopes of democracy from generation to generation. Their ranks must be filled with men and women trained in the skills, the arts, and the sciences and dedicated to a higher spiritual understanding through which all men can work for the common good.

FACULTY

The faculty of the Graduate School consists of those who hold the rank of professor or associate professor, assistant professor with a doctorate degree, and others approved by the Graduate Council. It is the responsibility of the graduate faculty to formulate and recommend requirements for all graduate degrees and to recommend regulations and facilities to promote the scholarly activities and research interests of graduate students.

GRADUATE COUNCIL

The chief administrative body of the graduate faculty is the Graduate Council, which consists of (1) the academic vice-president of the university, the dean of the Graduate School, and the director of research, ex officio; (2) four members of the graduate faculty elected at large for terms of three years; and (3) nine members of the graduate faculty, one elected from each of the nine colleges in which there are departments offering graduate work. The Graduate Council is empowered to act for the graduate faculty on all student petitions and in departmental requests for approval of faculty members for graduate instruction and supervision.

ADMINISTRATION OF THE GRADUATE PROGRAM

Subject to review by the president, the administration of the graduate program is vested in the Graduate Dean and the Graduate Council, which in turn delegates the operation of the specific program in any given area to the department involved.

SCHOLARSHIPS, ASSISTANTSHIPS AND FELLOWSHIPS

Fellowships and Scholarships. The university has established the following fellowships and scholarships for graduate students:

- 27 fellowships which provide for free tuition and remission of fees plus \$1,000.
- 30 scholarships which provide for free tuition and remission of fees plus \$300 to \$750.

These scholarships and fellowships are awarded on the basis of high academic achievement and are available to students in all areas of graduate study. Recipients must possess a baccalaureate degree at the beginning of the period for which the scholarship or fellowship is granted and be a candidate for a higher degree.

Applications for the academic year beginning in September should be filed by the preceding March 1. Application forms may be obtained from the office of the Committee on Graduate Scholarships and Fellowships.

Teaching and Laboratory Assistantships. Many departments employ graduate students as teaching or laboratory assistants. Assistantships are awarded on the basis of scholastic accomplishment and competence for service. Remuneration is based on the time which is devoted to teaching duties. The stipends vary from about \$750 to about \$1,800 per year, not including tuition and fees. Application forms and detailed information may be obtained by writing to the chairman of the department in which the applicant wishes to become an assistant.

Research Assistantships and Fellowships. A substantial number of research assistantships and fellowships are available at Brigham Young University. Recipients work part time under the supervision of a faculty member on research projects which are supported by university, government, or private sources. The awards vary from about \$1,200 to about \$2,500 per school year, depending upon the type of research and the amount of time devoted to it. Students interested in appointments to research assistantships or fellowships should direct inquiries to the chairman of the major department.

SUMMER SESSIONS

Graduate students who do a part of their work at the university during the summer will find a wide range of graduate courses suited to their purposes. A full quarter of work is offered in the summer school, which is divided into two terms so that students may attend only part of the summer if they desire. Graduate students may register for a maximum of nine credit hours per term.

LIBRARY FACILITIES

In relation to present size, the Brigham Young University has one of the ten fastest growing university libraries in the United States. With the growth in the number of volumes an effort is being made to acquire those library tools necessary to a graduate research program. A well trained staff is available to assist scholars in the use of the book collection, and to interpret the specialized bibliographies, catalogs, guides, and indexes.

The Heber J. Grant Library contains the general book collection including over 250,000 bound volumes, several thousand pamphlets, and an extensive collection of titles on microfilm and microcards. Over 3,000 periodicals are received regularly.

Special Libraries. The library for Physical Sciences and Engineering is on the main floor of the Carl F. Eyring Science Center. The Life Sciences Library—including Biological and Agricultural Sciences, Nursing and Home Economics—is in the west basement of the Family Living Center. The Phonograph Record Library is in Room 3263 of the Family Living Center.

The facilities of the LDS Genealogical and Historical Library in Salt Lake City, which contains over 500,000 titles, are also available by special arrangement, as are the collections of Utah and Mormon materials in the LDS Church Library in the same city.

ADMISSION TO THE GRADUATE SCHOOL

To be admitted to the Graduate School a student must apply for admission to the university, unless he was in attendance the preceding quarter, and he also must apply for admission to the Graduate School. Normally, this must be done at least two months before the beginning of the quarter in which he plans to begin his work. Students who do not have their applications filed by this date cannot be assured that their applications will be acted upon by the time school opens. Blanks for both types of admission are obtainable from and should be filed with the office of the Graduate School. Along with the application, the student must furnish evidence of having received a bachelor's degree or its equivalent from an accredited university, and provide transcripts of all his preceding

college work, if that work was taken at other universities. Students who do not plan to work for advanced degrees need supply only one copy of a transcript of their undergraduate work, but those students who intend to work for higher degrees must supply two copies, and must have achieved at least a "B" average in the last two years of college work.

Admission to the university is by registration permit issued by the University Admissions Office. Admission to the Graduate School, an additional step, which does **not** constitute admission on a degree-seeking basis, is completed when the student is notified by the Graduate Dean that his application for admission has been approved. It does permit the student to take any course for which he is qualified, with the understanding that this work will not apply toward a higher degree unless approved by the chairman of his advisory committee, and that he be accepted on a degree-seeking basis within the time limit prescribed for the degree for which he intends to work.

Foreign students especially are urged to correspond with the head of the department concerned to ascertain whether their preparatory work will be acceptable to the department and to the Office of Admissions, and are cautioned that adequate command of the English language is indispensable to successful graduate work.

A student whose native language is not English must include with his application for admission a statement from a responsible official that the applicant knows how to read, write, speak, and understand the English language sufficiently well to be able to pursue a satisfactory program of study in the Graduate School.

PROCEDURE FOR MASTER'S DEGREE

Preliminary to admission to degree-seeking status the applicant must present three letters of recommendation on forms provided by the Graduate School, one of which should be a character reference, and two must be from persons qualified to evaluate his academic work. These documents, together with the application and transcripts previously submitted, will be referred for evaluation to the department in which the student intends to major. The department may require additional documents, aptitude or achievement tests, or remedial course work, as a condition of admission. Such supplementary work may be taken at the university after registration for graduate study. When the student files with the dean of the Graduate School a statement from the chairman of the major department that all departmental conditions for admission have been met and that his advisory committee has accepted appointment, the dean will issue a statement of admission to degree-seeking status. Admission must be completed before the student registers for the last thirty hours of credit intended to apply on the degree.

PROCEDURE FOR DOCTOR OF PHILOSOPHY DEGREE

Admission to Degree-Seeking Status. A student desiring to work toward the doctorate must supply three letters of recommendation on prescribed forms, one a character reference, and two from persons qualified to evaluate his academic work. All documents relating to the student's qualifications and accomplishments will be referred to the department in which the student plans to major. The department may require additional evidence concerning the applicant's ability to pursue doctoral work, and may prescribe examinations, remedial work, or other requirements as a basis for its decision relative to the candidate's fitness for admission on a degree-seeking basis.

To be admitted on a degree-seeking basis for the doctorate, a student must have demonstrated high quality scholarship, capacity for research or creativity, broad educational interests, facility in written and oral expression, and appropriate professional objectives.

The student has the responsibility of filing with the dean of the Graduate School a statement from his advisory committee, signed by the chairman of his major department, that all departmental conditions for admission have been met

and that his program of doctoral studies has been approved. Notice by the graduate dean then admits the student on a degree-seeking basis for the doctorate. Such admission must be at least five quarters before the student is awarded the degree.

Comprehensive Examination. The candidate must pass a comprehensive examination on his doctoral fields under the direction of his advisory committee. This examination will normally be given at the end of the second year of study.

Admission to Candidacy. The student is admitted to candidacy for the degree by the dean of the Graduate School after the dean receives the recommendation of the advisory committee. This will normally be done after the completion of two years of graduate work. Satisfactory passing of the comprehensive examination and fulfillment of the language requirements are necessary for admission to candidacy.

GENERAL REQUIREMENTS FOR ADVANCED DEGREES

Advisory Committee. The student's program and his thesis or dissertation are developed under the direction and supervision of an advisory committee. The advisory committee for a student working toward the master's degree consists of two members, and for a student working for the doctorate consists of at least three members. These members are nominated by the student from his major and minor fields and appointed by the head of the department in which the student is to do his graduate work, with the approval of the graduate dean. The chairman of the advisory committee must always be a representative of the major field. It is the duty of this committee to advise the student in his proposed program, to approve his registration, and to direct his research and thesis or dissertation. As soon as the student's complete program is determined, which should be not later than the time he is accepted on a degree-seeking basis, each member of the advisory committee should be supplied by the student with a copy of the program and a copy must be filed by the student in the Graduate Office.

The membership of the advisory committee may be changed with the approval of all members of the newly constituted committee, the chairman of the major department, and the dean of the Graduate School. After such a change the student reviews his entire program with the new committee.

English 99. Students whose ability to write clearly and correctly is not deemed satisfactory by the department involved are required to enroll in English 99, Problems in Thesis Writing, a non-credit course. The course is equivalent to two credit hours and is regarded as part of a student's registration for that amount. It should be taken at the earliest possible time.

Student Load. A normal load is considered to be from 12 to 16 hours. Teaching assistants and others employed approximately one-half time should limit their loads to not more than 12 quarter hours, and full-time employees to not more than 5 hours. Experience has shown that because of the intensive character of graduate work and the academic grade-point average required, it is usually advisable for graduate students to limit their programs to something less than the maximum permitted when employed on a full or part-time basis.

Probation. Any student whose graduate record falls below a 2.7 grade-point average is placed immediately on probation.

Graduate Credit for Seniors. If during the last quarter of the senior year, a candidate for a baccalaureate degree finds it possible to complete all requirements for such a degree with a registration of fewer than sixteen quarter hours of undergraduate credit, he may register for graduate credit to the extent that the total registration shall not exceed sixteen quarter hours during the quarter. Written verification that all requirements have been met must be obtained from the appropriate undergraduate dean and presented to the dean of the Graduate School prior to such registration, but this registration does not constitute admission to the Graduate School.

Final Oral Examinations. The passing of a final oral examination not fewer than fifteen days prior to graduation is required. It is the duty of the student to schedule the final examination after obtaining from the chairman of the major department the names of the examining committee. Forms are available for this purpose.

The examination is conducted by a committee of five voting members, to be made up of the members of the advisory committee and others appointed by the chairman of the major department. The chairman of the advisory committee is in charge of the examination. Four affirmative votes are needed to pass. Other members of the graduate faculty may attend the examination and enter the discussion, but they may not vote.

Application for Graduation. A candidate for graduation in June must submit an application for graduation and pay the graduation fee not later than the preceding January 15, and a candidate for graduation in August should normally submit his application by March 15.

Approval for Graduation. Securing approval for graduation and permission to schedule the final examination is the responsibility of the candidate. At the time of registration for courses that will complete all credit requirements for the degree, the student must file with the Graduate Office, on a form provided, a request for such approval. The final examination is not scheduled until this is done.

SPECIAL REQUIREMENTS FOR MASTER'S DEGREE

Degrees Awarded

Master of Science Degree. The Master of Science degree is awarded upon completion of the requirements listed above.

Master of Arts Degree. The Master of Arts degree is awarded upon completion of the requirements listed above, plus completion of the foreign language requirement for the Bachelor of Arts degree.

Master of Education Degree. The Master of Education degree is awarded upon completion of the requirements for a Master of Science degree with the following exceptions: (1) a satisfactory field project (course 698) may be substituted for the thesis, and (2) a total of 45 hours of credit shall be presented in addition to the field project.

The project shall be a study of a practical problem in the field of the candidate's interest as a teacher. The problem is selected and developed by the student, subject to the approval of his advisory committee. A prospectus must be filed in the office of the Graduate School at the time of registration for the project. The finished report on the project shall conform to the requirements for a thesis in matters of style, format, and manner of filing. It is recommended that a candidate complete not less than one year as a teacher before beginning the field project.

CREDITS

Amount and Distribution of Credit. The master's degree requires the completion of 45 or more quarter hours of credit, at least 30 hours of which must be approved by the advisory committee prior to registration. At least 30 hours of graduate work must be in the 500 series or above. Courses in the 300 and 400 series may apply toward the remainder of the required credit but only if approved prior to registration by the student's advisory committee, or department chairman in cases where an advisory committee has not been appointed.

At least 23 of the hours must be in the major field and at least 15 in a minor field. At least three-fourths of all work applying on the degree, including all work in the 300 and 400 series, must be of grade "B" or better; none of the remainder may be of a grade lower than "C", and the average of all graduate work must be at least "B". At least 15 hours in the major field and 10 hours in

the minor field must consist of courses for which there is a systematic body of subject matter identified with a given course number such as ordinarily constitutes a formal course or seminar. Individual readings and special problems may not be included in these totals.

Transfer Credit. Graduate work up to 15 quarter hours may be transferred from other institutions upon the approval of the student's advisory committee and the Graduate Council. Forms for petitioning for such transfers are available in the office of the Graduate School. Credit transferred must represent work which is a fair and reasonable equivalent of corresponding work in this university. All transferred credit must be of grade "B" or better.

Conditions for the Application of Credit Toward a Master's Degree. Of the 45 hours required for the master's degree, at least 30 quarter hours of approved courses must be taken on the campus of Brigham Young University, and must be taken by the candidate after his advisory committee has been formed. No correspondence credit is applicable toward a master's degree.

Master's Thesis. The prospective candidate for the master's degree enrolls for a thesis (course 699) in his major department, preferably two quarters before the scheduled completion of his program. A student whose major is music theory, theatre and dramatic art, painting and sculpture, or design, may substitute for the thesis requirement a piece of creative work. For the various options that may be used in fulfilling the thesis requirement in the department of English, see the Graduate Catalog. At the beginning of his research or creative work the student must provide the chairman of his advisory committee with an outline or prospectus and secure approval on a form provided by the Graduate School. He is required to complete at least one full quarter of study after the date on which the form and prospectus are delivered to the Graduate Office. A complete, signed, but unbound copy of the thesis must be on file in the office of the Graduate School and with the chairman of the advisory committee fifteen days prior to the final examination and not later than thirty days before graduation. Up to six hours of credit may be recorded when the thesis is completed and accepted. Four copies of the thesis must be submitted.

Each candidate is required to furnish six abstracts of his master's thesis, one abstract to accompany each copy of the thesis and two extra copies. (A seventh copy of the abstract is required for theses in Education.) The abstract is to have a maximum length of 600 words and should be bound with the thesis, following the bibliography.

Time Limit. All requirements for the master's degree must be completed within six years from the date when the student registers for the first graduate work which is applied toward the degree.

SPECIAL REQUIREMENTS FOR THE DOCTOR OF PHILOSOPHY DEGREE

The Doctor of Philosophy degree is awarded for distinguished attainment in a recognized field of learning, not merely for the completion of courses of study. The university offers the Doctor of Philosophy degree in the fields of chemistry, geology, history, human development and family relationships, musicology, psychology, history and philosophy of religion, Bible and modern scripture, and sociology.

Academic Requirements. The student must select a major field of study and at least one minor field approved by the department chairman and the dean of the Graduate School. Specific requirements in these fields are described by the departments.

The equivalent of at least three years of full-time study is required, at least two of which, including the last, must usually be at Brigham Young University. Full-time study is defined as at least twelve hours in course work or the equivalent in research per quarter. The advisory committee has authority to decide what work will be accepted to meet these requirements, and may accept or require up to two years of full-time study elsewhere.

Language Requirement. Before taking his comprehensive examinations, the student must present satisfactory evidence of proficiency in two foreign languages, one of which must be French or German, chosen in consultation with the advisory committee.

The language examination is administered by the Language Department in agreement with the department in which the student is majoring. The examination tests primarily reading proficiency in the student's major field. If the student is not prepared to pass examinations in both languages at entrance, on his application for admission he must satisfy the dean that he is taking necessary steps to do so promptly.

Dissertation. The candidate is required to present an acceptable dissertation based upon his own research. Four typewritten copies must be filed in the office of the Graduate School at least fifteen days prior to the final examination. At the same time, seven copies of an approved abstract of not more than 600 words must be submitted. The student is also required either to furnish the university with fifteen reprints of his dissertation or to arrange for its microfilming.

Final Examination. Not later than fifteen days before graduation, the student must pass a final examination given by a committee of not fewer than five members. The committee consists of the advisory committee plus such other members as the dean of the Graduate School shall designate.

Departmental Requirements. A statement of special requirements for the doctorate is found in the Graduate Catalog under the name of the major department.

Time Limit. All requirements for the Doctor of Philosophy degree must be completed within nine years of the date on which the student applies for admission to degree-seeking status for that degree. In order for credit which exceeds this time limit to apply on the degree, such credit must be validated by special examination.

SPECIAL REQUIREMENTS FOR THE DOCTOR OF EDUCATION DEGREE

Admission to Degree-Seeking Status. In addition to the requirements stated elsewhere, the applicant must possess certification as a teacher, must have completed two years of practical experience in education, and must possess demonstrable acquaintance with the field of education. His competence will be ascertained by a qualifying examination covering work equivalent to thirty hours of credit. There is no special requirement as to how the student should obtain this background. The examination will be given soon after the student is admitted.

Advisement. The early advisement of the student, until he has passed the qualifying examination, will be supervised by the Graduate Committee of his college, which will assign him a specific adviser in his major field. When the student successfully passes the qualifying examination, he will be given an advisory committee of at least four members. They are to be nominated by the student to his adviser, who in turn recommends the committee membership to the Graduate Committee of the college. The Graduate Committee then forwards its recommendation to the dean of the Graduate School who grants final approval. The chairman must be in the student's major field, and there must be one member from each of his supporting fields. The chairman of the major department shall be a member *ex officio*.

Academic Requirements. The student must meet the departmental requirements of his chosen major field and the requirements established within his department and college in three supporting fields. He will be required to complete the equivalent of at least three years of full-time study, of which one must consist of three consecutive quarters on the campus of the university. He must take one three-hour seminar during each of these quarters. Work accepted from another institution must be approved by the advisory committee and the Graduate Council.

The candidate must demonstrate proficiency in statistics to the satisfaction of the advisory committee.

Field Project and Report. A field project for the improvement of a program of administration or instruction must be carried out under the direction of the student's advisory committee, after he has passed the comprehensive examination. The report of the field study must meet the same standards of format as the Ph.D. dissertation, and be submitted under the same schedule and requirements regarding publication.

Comprehensive Examination and Admission to Candidacy. A comprehensive examination on the formal academic work will be given after completion of about two full years of study. The student will be recommended to the dean of the Graduate School for admission to candidacy when he passes this examination.

Final Examination. Not later than 15 days before graduation, the student must pass a final examination on the field project and related matters. The examining committee will consist of his advisory committee, and such others as the department chairman and dean of the Graduate School may designate.

Time Limit. All work for the degree must be completed within nine years of the date on which the student applies for admission to degree-seeking status for that degree. In order for credit which exceeds this time limit to apply on the degree, such credit must be validated by special examination.

List of Courses

General

Semester System. Commencing with Autumn Quarter 1960, courses of study at Brigham Young University will be offered on a semester basis rather than on a quarter basis as at the present time. The General Catalog of Courses scheduled for publication in April 1960 will contain information and course listings based upon the semester system.

It is felt that the semester system will benefit both present and prospective students by reducing administrative procedures and by increasing opportunity for effective learning.

Course Numbering System.

Course Number	Type of Course
1 to 99	Preparatory and remedial (non-credit)
100 to 299	Lower Division
300 to 499	Upper Division
500 to 599	Advanced undergraduate or graduate
600 to 799	Graduate

Credit Hour Designation. The three-number code for credit hours has the following significance:

First number:	Quarter Hours of Credit
Second number:	Class hours of lecture, recitation, or seminar meeting per week or Minimum hours of individual study required per week
Third number:	Laboratory hours required per week or Hours of field study or individual research per week

Cross Referencing of Courses. Each course is listed completely only once in the catalog. If the course may count in another department, it appears in a special grouping at the end of the course listing for that department.

Inter-departmental Courses. In Family Living, Humanities, and Physical Science inter-departmental courses are taught. In the course listing which follows, these courses appear under the appropriate headings of Family Living, Humanities, and Physical Science rather than in a specific department.

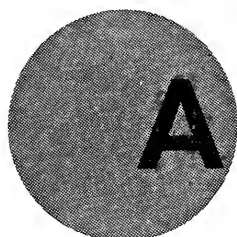
Graduate Courses. For regulations governing study beyond the bachelor's degree, see the Graduate School section of this catalog and the Graduate Catalog. Advanced undergraduate or graduate courses (500 series) may be used for graduate credit with certain limitations.

Reservation of Right to Change Courses. At the time of printing of this catalog, the university intends to give the courses listed herein, but reserves the right to eliminate or discontinue any of them or to add new courses.

Courses

Accounting
 Agricultural Economics
 Agronomy
 Air Science
 Animal Husbandry
 Archaeology
 Art
 Bacteriology
 Bible and Modern Scripture
 Biblical Languages
 Botany
 Business Education and Office Management
 Business Management
 Chemical Engineering Science
 Chemistry
 Civil Engineering Science
 Clothing and Textiles
 Economics
 Economics and Management of the Home
 Educational Administration
 Educational Philosophy and Programs
 Educational Research and Services
 Electrical Engineering Science
 English
 Family Living, General
 Food and Nutrition
 Forum Assemblies
 Geography
 Geology and Geological Engineering Science
 Health Education
 History
 History and Philosophy of Religion
 Homemaking Education
 Horticulture and Horticultural Specialties
 Housing and Design
 Human Development and Family Relationships
 Humanities
 Industrial Education
 Instruction
 Journalism
 Languages
 L.D.S. Theology, Church Organization and Administration
 Library Science
 Mathematics
 Mechanical Engineering Science
 Music
 Nursing
 Physical Education
 Physical Science
 Physics
 Political Science
 Psychology
 Recreation
 Religious Education
 Sociology
 Speech and Dramatic Arts
 Youth Leadership
 Zoology and Entomology

Accounting



Professors: Andersen (chairman), R. J. Smith.

Assistant Professor: Johnson.

Instructors: Skousen, J. M. Smith, Western, J. M. White.

Although the profession of accounting is relatively young, it is growing rapidly and offers unlimited opportunities for professional recognition, financial reward and public service.

A broad variety of careers is open to the trained accountant. He may practice the profession of public accounting, take a salaried position as the accountant or financial officer of a business organization, engage in a government service as an accountant, or enter the teaching profession. Accounting is a basic tool of every person who engages in business activity.

In addition to the regular four-year program leading to a bachelor's degree, special five-year programs are now offered as outlined below.

Suggested Program for Accounting Majors

The courses listed below include both the university and the departmental requirements.

	Maximum Hours	Minimum Hours
Freshman year:		
*Physical Education and Health	5	5
*English 111, 112, 113, or 115 and 116	9	6
**Religion	6	6
*Physical Science	9	5
*Biological Science	8	8
Social Science:		
*History 170 or 180	5	5
*Other (Psychology 111 suggested)	5	5
*Humanities and Aesthetics	5	5
Elective—preferably to be used filling groups		7
	<hr/> 52	<hr/> 52
Sophomore year:		
**Religion	6	6
*Humanities and Aesthetics	10	10
*Physical Science		4
*Economics 101, and 102, or 111 (Principles)	8	5
*Accounting 201 and 202 (Elementary)	10	10
*Accounting 230 and 231, or Math 111 and Accounting 231 (Business Math)	8	6
*Accounting 285 (Cost)	5	5
Elective	5	6
	<hr/> 52	<hr/> 52

Junior Year:

**Religion	6	6
*Economics 331 (Business statistics)	5	5
*Business Management 340 (Industrial Organizations)	5	5
*Business Management 342 (Commercial Law)	5	5
*Business Management 347 (Marketing)	5	5
*Business Management 348 (Financial Adm.)	5	5
*Economics 345 (Intermediate Theory)	5	5
*Accounting 316 (Basic Punched Card Machine Operation)	2	2
*Accounting 350, 351, 352 (Intermediate)	15	15
	<hr/> 53	<hr/> 53

The above courses include university, college, and departmental requirements except (1) Accounting 459, (2) the 60 hours of upper division credit required (which could be completed by taking upper division courses in religion and in the elective hours provided), and (3) the 186 total hour.

With the exceptions noted, a student who has completed the above program has covered a basic course in accounting. At this point he should determine the extent to which he desires additional accounting training. A number of alternatives are available. Listed below are four plans: one for those who desire to complete their training in four years, and three alternative plans for those intending to complete a five year professional course.

Four year general accounting course, senior year:	Hours
Accounting 317 (Punched Card Accounting)	2
Accounting 450 (Taxes)	5
*Accounting 459 (Law)	5
Accounting 565 (Auditing)	5
Business Management 480 or 481 (Executive Lectures)	1
B.E.O.M. 220 (Business Communication)	3
**Religion	0-6
Elective hours	25-31
	<hr/> 52-58

Five year programs:**No. 1. Controllership and Industrial Accounting****Senior year:**

Accounting 317 (Punched Card Accounting)	2
Accounting 450 (Taxes)	5
*Accounting 459 (Law)	5
**Religion	0-6
Accounting 565 (Auditing)	5
Elective—suggested courses are Business Management 420, 421, 450, 452, 474, 480, or 481; Economics 453, 461; Accounting 332, 596	25-31
	<hr/> 48-54

Fifth year:

Accounting 582 (Advanced taxes)	3
Accounting 555 (Systems)	5
Accounting 584 (Advanced Cost)	3
Business Management 588 and 589 (Problems in Business Management)	8
Business Management 577 (Modern Corporate Problems)	3
Economics 576	5
Elective	18
	<hr/> 45

No. 2. Electronic Data Processing**Senior year:**

Accounting 317 (Punched Card Accounting)	2
Accounting 450 (Taxes)	5
*Accounting 459 (Law)	5
**Religion	0-6
Accounting 332 (Advanced Business Math)	3
Accounting 565 (Auditing)	5
Elective	22-28
	<hr/> 48

Fifth year:

Accounting 555 (Systems)	5
Accounting 556 (Computer Programming)	5
Accounting 557 (Advanced Computer Programming)	3
Economics 531, 532, 533, 534	12
Elective	23
	<hr/> 45

No. 3. Professional Public Accounting**Senior year:**

**Religion	0-6
Accounting 316 (Punched Card Accounting)	2
*Accounting 459 (Law)	5
Accounting 450 (Taxes)	5
Accounting 440 (Municipal)	3
Accounting 565 (Auditing)	5
Accounting 582 (Advanced Taxes)	3
Accounting 584 (Advanced Cost)	3
Accounting 593 (Internship)	1-9
Elective—suggested courses are Business Management 451, 452; Economics 453; Accounting 596	13-15
	<hr/> 48

Fifth year:

Accounting 545 (Theory)	5
Accounting 570 (Advanced)	5
Accounting 586, 587, 588 (C.P.A. Coaching)	12
Economics 534	3
Accounting 555 (Systems)	5
Elective—suggested courses are Business Management 571, 577; Economics 575, 576	15
	<hr/> 45

The student in each of the five year programs may desire to obtain a master's degree in accounting. In this event, a thesis would be required, for which the student could obtain six additional hours of accounting credit. In addition to the thesis, the student would have to complete fifteen hours in a minor field. Ample time is provided in each program for this purpose.

*Courses required for graduation by the university, college, or department.

**Required by the university for graduation. The student may reduce this requirement by six hours by taking six hours of classes that count both as religion courses and as humanities and aesthetics or social sciences.

Lower Division Courses

- 101. Elementary Accounting.** (5:5:0) A.W.S. Home Study also. Staff
An introductory course for freshman students who have had neither training nor experience in accounting or Mathematics 101 or its equivalent.
- 102. Elementary Accounting.** (5:5:0) A.W.S. Home Study also. Staff
Continuation of Accounting 101.
- 201. Elementary Accounting.** (5:5:0) A.W.S. Prerequisite: high school book-keeping or Mathematics 101 or its equivalent. Staff
An introductory course designed for the student whose major field demands a more rigorous course than Accounting 101.
- 202. Elementary Accounting.** (5:5:0) A.W.S. Prerequisite: Accounting 201 or 101 and special permission. Staff
A continuation of Accounting 201. Required for accounting majors.
- 230. Mathematics of Business.** (3:3:0) A.W.S. Home Study also. Prerequisite: Mathematics 101 or equivalent. Staff
Application of mathematics to business; includes ratio and proportion, index numbers, markup pricing, discounts, simple and compound interest, annuities, amortization, sinking funds, bond valuation and depreciation.
- 231. Mathematics of Business.** (3:3:0) A.W.S. Home Study also. Prerequisite: Accounting 230 or Math 111. Staff
Continuation of Accounting 230.
- 285. Cost Accounting.** (5:5:0) A.W.S.Su. Prerequisite: Accounting 102 or 202. Staff
An introduction to the principles and practices of cost accounting.

Upper Division Courses

- 316. Basic Punched Card Machine Operations.** (2:2:1) A.W.S.Su. Prerequisite: Accounting 101 or 201. Staff
Principles, functions, and operation of punched card equipment.
- 317. Punched Card Accounting.** (2:2:1) S. Prerequisite: Accounting 316. Staff
The application of punched card equipment to accounting records.
- 332. Advanced Mathematics of Business.** (3:3:0) W.S. Prerequisite: Accounting 231. Recommended: Economics 331. Staff
Application of mathematical techniques to electronic data processing, linear programming, operations research and economics research.
- 350, 351, 352. Intermediate Accounting.** (5:5:0 ea.) A.W.S. 350, 351—Home Study also. Prerequisites: Accounting 202 or 102 and special permission. Staff
This course is designed to meet the requirements of two groups: (1) general business students primarily concerned with the interpretation and use of the products of accounting and for whom this course may be the final formal study in this field, and (2) students who have chosen accounting as a career and for whom the intermediate courses must provide a broad foundation for the specialized studies to follow.
- 440. Municipal and Government Accounting.** (3:3:0) W. Prerequisite: Accounting 351. Staff
Operation and auditing of municipal and government accounts.
- 450. Federal and State Taxes.** (5:5:0) A.W.Su. Home Study also. Prerequisites: Accounting 102 or 202 and preferably 350 or Business Management 203. Staff
A study of federal and state tax legislation and regulations with emphasis on individual income tax.

- 459. Advanced Business Law.** (5:5:0) W.S. Prerequisite: Business Management 342. Andersen

Business law for accountants and businessmen with emphasis on the laws governing finance, real and personal property, employer-employee relationships, government regulation of business, wills, bankruptcy, estates and trusts.

Advanced Undergraduate or Graduate Courses

- 545. Theory of Accounts and Statements.** (5:5:0) W. Staff
A brief study of the history and development of accounting and financial statements, their meaning and interpretation. Current accounting problems will be reviewed.
- 555. Accounting Systems, Procedures and Methods.** (5:5:0) W. Prerequisites: Accounting 102 or 202; 316; B.E.O.M. 106. Staff
Selection and design of accounting systems and procedures. Preparation of the accounting manual, financial reports and statements.
- 556. Electronic Computer Programming.** (5:5:0) A.W. Prerequisite: Accounting 230 or equivalent; 316. Staff
Basic computer logic, binary notation, operational coding, flow charting, iterative routines, subroutines, library programs, optimum coding, symbolic coding, and data processing application.
- 557. Advanced Computer Programming.** (3:3:0) S. Prerequisite: Accounting 556. Johnson
Emphasis on solution of practical problems in data processing. Work on the university's computer and comparison of various computers in current use.
- 565. Auditing and Professional Ethics.** (5:5:0) A.Su. Prerequisite: Accounting 352. Staff
Principles and methods of public accounting, professional responsibility and conduct, techniques of verification of accounts and financial statements, audit of working papers.
- 570. Advanced Accounting.** (5:5:0) A.Su. Prerequisite: Accounting 352. Staff
- 571, 572. Industrial Internal Auditing.** (3:3:0 ea.) W.S. Not offered this year. Staff
Prerequisites: Accounting 352, 565 or equivalent.
- 582. Advanced Tax Problems.** (3:3:0) S. Prerequisite: Accounting 450. Andersen, Johnson, Smith
- 584. Advanced Cost Accounting.** (3:3:0) S. Staff
- 586, 587, 588. C.P.A. Coaching.** (4:1:0 ea.) A.W.S. Evening sessions. Prerequisites: Accounting 285, 352, 565, and the following, which should be taken before or with C.P.A. Coaching: Accounting 440, 450, 570. Staff
- 593. Reading and Conference.** (1-5:1-5:0) A.W.S.Su. Staff
Subject to be arranged with instructor.
- 596. Accounting Internship.** (1-9:0:40) W. Recommended prerequisite: Accounting 565. Staff

Graduate Course

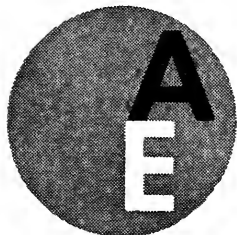
- 699. Thesis for Master's Degree.** (Arr.) A.W.S.Su. Staff

These courses also count in Accounting:

Business Education and Office Management 106. Calculating Machines. (2:5:0)
Business Management 588, 589. Problems in Business Management. (4:4:0 ea.)

Professor: G. T. Nelson.
Associate Corbridge (chairman, 171B), B.
Professors: D. Gardner, H. Nielson.

Agricultural Economics



The Department of Agricultural Economics emphasizes the business and economic aspects of agriculture. A wide range of electives permits a student in this department to choose course work from many different areas. The student should adapt his study program to his particular interest and needs.

The department attempts to serve students primarily concerned with (1) farming as a career, (2) training for employment with business devoted to the production and distribution of agricultural products, (3) business and governmental institutions rendering services to agriculture, and (4) training for careers in research and teaching.

Thirty hours, including Agricultural Economics 101, 123 or equivalent; 125 or 325; 310, 350, 425, and Economics 331 are required for a major in Agricultural Economics.

It is recommended that students training for professional employment take Economics 345. Also, students working toward graduate degrees are encouraged to take Economics 586. Credit for Economics 345 and 586 will apply toward major credit.

Agricultural economics majors are encouraged to take several classes in each of the other agricultural departments. At least two courses are required from each of the following areas:

Agronomy 141, 251.

Animal Husbandry 101, 161, 170, 207.

Horticulture 101, 102, 103.

Students training for business employment in fields related to agriculture are encouraged to choose a minor from among the following: agronomy, animal husbandry, horticulture, business management, political science, or economics.

Lower Division Courses

- 101. Economics and Agriculture.** (5:5:0) A.W.S. Home Study also. (G-SS)

Corbridge, Nelson

Basic general education course in economics covering the same theoretical framework as in Economics 101, but with special reference to the agricultural sector of the economy.

- 123. Farm Accounting.** (3:3:0) W.

Corbridge

Elementary study of basic records needed for income tax computation and effective farm management, their compilation, interpretation, and use.

- 125. Farm Management.** (3:3:0) A.S. Corbridge
A general consideration of farm management, with special reference to land-use programs; livestock systems; power, labor, and machinery inputs; farmstead planning; farm records and finance.

Upper Division Courses

- 310. Marketing Farm Products.** (3:3:0) A.Su. Nelson
Economic principles, marketing agencies, methods of selling, channels of distribution, market information, current research, and regulations affecting major farm products.
- 320. Agricultural Cooperatives.** (3:3:0) W. Nelson
Organization, financing, management, price policy, membership and public relations; factors affecting the success of cooperative associations.
- 325. Farm Management.** (5:5:0) W. Prerequisites: Economics 101, Agricultural Economics 125, or special permission of the instructor. Corbridge
Practical application of principles of production economics, combination of productive resources, measures of efficiency, farm accounts, financing, contracts, and other factors affecting success.
- 350. Western Land and Range Problems.** (3:3:0) W.Su. Nelson
Land and range requirements. Economics of land use, evaluation, and conservation of basic resources. Social and economic problems related to credit, taxation, land ownership, range management, reclamation projects and irrigation developments.
- 360. Law and the Farmer.** (3:3:0) W.Su. Home Study also. Nelson
A study of legal problems with which the farmer is most often concerned in the operation of the farming enterprise.
- 370. Agricultural Prices.** (5:5:0) S. Nelson
Pricing principles, relation of prices of agricultural and non-agricultural products, prices and commodity surpluses, cash and future prices, price forecasting and outlook, analysis of price variations for farm products.
- 410. Marketing Livestock Products.** (3:3:0) W. Nelson
A study of existing marketing channels and methods of handling livestock products including poultry, dairy and meat animals and their products.
- 425. Farm Appraisal and Finance.** (3:3:0) S. Corbridge
Training in farm appraisal for purposes of purchase, finance and taxing. Also an evaluation of the principal sources of farm finance.
- 490, 491. Seminar.** (1:1:0) A.W. Staff

Advanced Undergraduate or Graduate Courses

- 530. Intermediate Statistics.** (3:2:1) W. Prerequisite: Agricultural Economics 430. Staff
Statistical methods.
- 531. Advanced Statistics.** (3:2:1) S. Prerequisite: Agricultural Economics 530. Staff
Statistical methods.
- 580. Agricultural Policy.** (3:3:0) A. Corbridge
The theoretical and institutional setting of the agricultural industry, the objectives of farm policy, and the means of achieving these objectives. Includes a study of existing and proposed farm legislation.
- 590, 591. Seminar.** (1:1:0 ea.) A.W. Staff

595. Individual Readings. (Arr.) A.W.S.

Staff

597. Individual Research. (Arr.) A.W.S.

Staff

These courses also count toward Agricultural Economics credit:

Economics 331. Business and Economics Statistics. (3:3:0)

Economics 345. Intermediate Economic Theory. (5:5:0)

Economics 586. Advanced Economic Theory. (5:5:0)

Agronomy

Professor: R. B. Farnsworth.
Associate R. C. Allred (chairman, 172 B),
Professors: Ashton, Hallam.



The Department of Agronomy includes work in crops and soils. Students majoring in the field may be trained in the following areas: (1) practical scientific farming, (2) government civil service, (3) commercial agricultural positions, (4) graduate study toward the M.S. or Ph.D. degree, and (5) agricultural teaching when program is planned in that direction.

Students registered or majoring in any of the agricultural departments (except those planning to do graduate work toward a Ph.D. degree) are required to take at least two courses from each of the following areas:

Agricultural Economics 123, 125, 310.

Animal Husbandry 101, 161, 170, 207.

Horticulture 101, 102, 103.

In addition, students returning to the farm should take at least two courses in industrial arts.

All majors in Agronomy are required to take one year of chemistry.

The following courses are recommended for all agronomy majors:

Mathematics 101 or 111, and 112 or 135.

Chemistry 111, 112, 113.

Botany 101 or Zoology 105, and Botany 410.

Bacteriology 121.

Geology 111.

Students majoring in agronomy may direct their training toward either crops or soils. Those desiring crops training should take the following:

Agronomy 141, 251, 260, 262, 305, 455.

Those desiring most of their training in soils should take the following:

Agronomy 141, 251, 302, 305, 307.

A minimum of 30 hours is required for a major in either case. Hours above those required may be taken from any of the courses listed under the Agronomy Department offering.

Following is a recommended sequence of courses:

Freshman Year

	A	W	S
English 111, 112, 113.....	3	3	3
Phys. Ed.	1	1	1
Math. 101, 111, or 112	5	5	
Chemistry 111, 112, 113	5	5	5
Religion	2	2	2
Botany 101			5
Health 130	2		
Electives		2	2
Total Hours	18	18	18

Sophomore Year

	A	W	S
Agron. 141, 251	4	4	
Bact. 121			4
Chemistry 221	5		
Religion	2	2	2
Social Science	5		5
English			3
Geology			5
Electives	2	4	7
Total Hours	18	18	18

Junior Year

	A	W	S
Agron. 451, 455		3	3
Agron. 302, 307		4	3
Religion (Upper Division)	2	2	2
Electives	16	9	10
Total Hours	18	18	18

Senior Year

	A	W	S
Agron. 305, 506, 314	5	3	5
Agron. 496	1	1	1
Botany 410			5
Religion (Upper Division)	2	2	2
Electives	10	7	10
Total Hours	18	18	18

1. In planning a program for returning to the farm, the student should take as many courses as possible in the following areas depending upon his needs, desires, and the requirements of his minor field:

Animal Husbandry 335, 360, 370, 427.

Botany 451, 470.

Industrial Arts 103, 120, 125, 150, 308, 365, 401, 405, 407.

Agricultural economics, agronomy, and horticulture as listed in this catalog.

2. Should a student desire to enter the field of government civil service as an agronomist, soil conservationist, soil scientist, or reclamationist, his general courses will be as listed above with electives from the following:

Animal Husbandry 335, 360, 370, 427.

Agricultural economics, agronomy, and horticulture as listed in this catalog.

Botany 123, 410, 430.

Chemistry 220 or 221.

Drawing 102.

Geology 102, 111, 112.

Mathematics 112, 231.

3. For training for commercial positions, a combination of the above courses is suggested.

4. The suggested course of study for agronomy majors who plan to do graduate work for a Ph.D. degree in soils is as follows:

	Hours
Agronomy 141, 251, 301, 302, 305, 307, 314, 496, 503	30-32
Bacteriology 121	4
Botany 101 or Zoology 105	5
Botany 410, 430, 470	5
Chemistry 111, 112, 113, 221 and 351, 352, 353 or 461, 462, 463....	32-35
Geology 102, 111	5
German 101, 102, 103	15
Mathematics 111, 112, 231, 232, 233, 234	30
Physics 211, 212, 213	15

Lower Division Courses

- 141. General Soils.** (4:2:4) A.S. Home Study also—no laboratory, 3 credits. Hallam
An introductory course dealing with the physical, chemical, and micro-biological properties of soils.
- 251. Principles of Field Crop Production.** (4:3:2) A.W. Allred
Crop production principles, soil-plant relationships, corn improvement, tillage and crop rotations. May be taken concurrently with Agronomy 260, 261.
- 260. Cereal Crops.** (2:2:0) Home Study 3:0:0. Offered 1960-61 and alternate years. Prerequisite: Agronomy 251. Allred
Classification, history and cultural methods involved in the production of cereal crops.
- 261. Root and Special Crops.** (2:2:0) W. Offered 1959-60 and alternate years. Prerequisite: Agronomy 251. Allred
Cultural methods, market types, and commercial possibilities of sugar beets, potatoes, etc.
- 262. Forage Crops.** (4:3:2) W. Home Study also—no laboratory, 3 credits. Prerequisite: Agronomy 251. Allred
Alfalfa, clovers, grasses, and other forage; meadow and pasture management, silage and soiling crops.

Upper Division Courses

- 301. Soil Physics.** (3:3:2) A. Prerequisites: Agronomy 141, Chemistry 111, and Mathematics 101 or 111. Recommended prerequisites: Physics 211, 212, 213; Chemistry 112, 113, and 220 or 221. Farnsworth
Physical composition of soils—sand, silt, clay, and organic matter—and their effects upon the air, water, and temperature relationships in the soil.
- 302. Irrigation and Drainage.** (4:3:2) W. Prerequisites: Agronomy 141, Mathematics 111. Farnsworth
Proper use of irrigation water; irrigation water supply; water measurements; drainage in relation to the irrigation practices; drainage and alkali; drainage systems.
- 305. Soil Fertility.** (5:3:4) A. Home Study also—no laboratory, 3 credits. Prerequisites: Agronomy 141 and Chemistry 105 or 111. Hallam
A study of the underlying principles of soil fertility, soil alkali, soil chemical analysis or soil testing, commercial fertilizers, farm manures, green manures, crop rotations.
- 307. Soil Origin, Classification, Conservation, and Survey.** (3:2:3) S. Prerequisites: Agronomy 141, Geology 101. Farnsworth
The influence of geologic forces and climate environment on soil development; classification of soils based upon soil profile characteristics. Methods of soil conservation and soil survey are emphasized.
- 314. Soil Microbiology.** (3:3:0) S. Prerequisite: Bacteriology 121. Hallam
Designed to acquaint the student with bacteria in relation to soil fertility; the activity and types of organisms in the rhizosphere; the biological processes in the soil.
- 315. Soil Microbiology Laboratory.** (2:0:4) S. Prerequisites: Agronomy 314, Chemistry 221, or equivalent, or consent of instructor. Hallam
Designed to accompany soil microbiology lectures.
- 451. Principles of Weed Control.** (3:3:0) S. Recommended prerequisite: Agronomy 141, 251. Allred
Cultural, chemical, and biological methods of weed control.

- 453. Advanced Field Crops and Seed Production.** (3:3:0) W. Prerequisites: Agronomy 141, 251, 262. Allred
Problems involved in seed crop production, crop judging, and seed certification.
- 455. Pasture Management.** (3:3:0) S. Prerequisites: Agronomy 141, 262. Allred
Analysis of the conditions of pastures in the intermountain region, need for improvement, factors involved in improvement; principles and practices of management required to provide maximum production for dairy, beef, sheep, hogs, and poultry.
- 457. Identification and Ecology of Weeds and Crops.** (3:3:0) Su. Allred
Field study of important grasses, legumes, other agronomic crops, and weeds; adaptation to soil, moisture, light, and other environmental conditions; growth characteristics, utilization, and control.
- 459. Plant Breeding.** (3:3:0) S. Prerequisites: Botany 101 and Zoology 176. Ashton
Methods of hybridizing and selection in relation to plant improvements.
- 496. Seminar.** (1:1:0) A.W.S. Staff
Current agronomic literature, agricultural problems. Required of all senior students majoring in agronomy.
- 497. Research and Special Problems.** (1-3:1-3:0) A.W.S.Su. Staff
Seniors specializing in agronomy elect research work from one to three hours.
- 498. Agricultural Literature.** (1-5:1-5:0) A.W.S. Staff

Advanced Undergraduate or Graduate Courses

- 503. Soil Chemistry.** (3:3:0) W. Prerequisites: Chemistry 221 or consent of instructor. Hallam
A physico-chemical study of soil colloids.
- 506. Soil and Plant Analysis.** (3:0:6) W. Prerequisites: Agronomy 305, Chemistry 220 or 221. Hallam
Laboratory chemical analysis of soils and plant materials; use of radioactive materials in soil fertility research; use, care and measurement of radioactive materials.

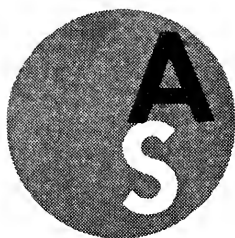
Graduate Courses

- 601. Advanced Soil Physics.** (4:3:3) W. Farnsworth
- 605. Chemistry of Soil-Plant Relationships.** (4:4:0) A. Hallam
- 614. Advanced Soil Microbiology.** (3:3:0) S. Prerequisites: Agronomy 305, Bacteriology 121. Hallam
- 615. Soil Microbiology Laboratory.** (2:0:4) S. Prerequisites: Agronomy 614, Chemistry 221 or equivalent. Hallam
Accompanies microbiology lectures.
- 659. Advanced Plant Breeding.** (3:2:2) A. Not given this year. Allred
- 694. Seminar.** (1:1:0) A.W.S. Staff
- 695. Special Problems.** (Arr.) A.W.S. Staff
- 697. Research.** (Arr.) A.W.S.Su. Staff
- 698. Agricultural Literature.** (Arr.) A.W.S. Staff
- 699. Thesis for Master's Degree.** (Arr.) Staff

This course also counts in Agronomy:

Horticulture 458. Weeds and Seed Analysis. (2:0:4)

Air Science



Professor: Lt. Colonel Gibson (chairman, 145 HC).
Assistant Professors: Captain Alvord, Captain Dye, Captain Huish, Captain Stenquist.
Instructors: M/Sgt. Hancock, T/Sgt. Boman, S/Sgt. Atkinson, S/Sgt. Hall, S/Sgt. Willden.

The AFROTC Program. The AFROTC program is a four-year program designed to fit into the regular academic schedule at B.Y.U. The program consists of thirty credit hours of academic work which count toward graduation requirements, one hour of leadership laboratory per week, and attendance at a four-week summer training course between the junior and senior years at a designated Air Force base. Upon successful completion of the program and the university requirements for a baccalaureate degree, the student is qualified to receive a second lieutenant's commission in the United States Air Force Reserve.

Leadership Laboratory. The Leadership Laboratory is designed to give the cadet direct experience in the handling of men during his progress through the program. He learns leadership techniques and increases his self-confidence. He is promoted through the lower cadet airmen grades in his basic years as his leadership ability is demonstrated. During his sophomore year his eligibility for enrollment in the advanced program is determined. During his junior year the cadet holds non-commissioned officer grades, and after completing the summer training course before his senior year he is promoted to a cadet commissioned officer and given responsibilities in the leadership training of other cadets. The Leadership Laboratory is planned and operated by the advanced cadets under minimum supervision of a faculty adviser. The cadet is required to wear his uniform during the day he attends Leadership Laboratory. Leadership Laboratory is held once each week, normally on Monday afternoon.

Summer Training. The four-week summer training course is a supplement to the academic program and is designed to promote increased enthusiasm and interest in the Air Force. The summer training course also emphasizes flying for those physically qualified. It also develops in the cadet a better understanding of the mission of the USAF and the operations of an Air Force base, increasing his proficiency in essential areas of junior officer training. The cadet also receives medical care, food, and clothing while at summer training and is paid \$75.00 and reimbursement for transportation to and from training at the rate of five cents per mile.

General Information. Approximately eighty per cent of the second lieutenants in the United States Air Force are graduates of the AFROTC program. There are no marriage restrictions for AFROTC men either at B.Y.U. or while on active duty. AFROTC training does not make a specialist out of the student, but it does train him as a junior executive. During the program, he will have applied his military knowledge to practical situations by staff studies, oral presentations, student instruction, and group discussions. He will have learned sound leadership techniques to prepare him to serve as a commissioned officer in the United States Air Force as well as a leader in civic and community affairs.

Enrollment. A student may enroll in the AFROTC program at only one time: during his first quarter at B.Y.U. Transfer students from institutions

where an ROTC program was offered are not eligible unless they were enrolled in ROTC at their first institution. Students transferring from institutions where ROTC was not offered are eligible only if they have four years of academic requirements to complete for graduation. See paragraph entitled **Veterans** for the only exceptions to the above. The program must be completed concurrent with or before graduation. If it is completed before graduation, the student must graduate within one year, during which time he will continue to be deferred from the draft. Freshman air science students need take only two of the usual three required quarters of physical education. Withdrawal from the air science program before the completion of six credit hours imposes the full physical education requirement.

Eligibility. The beginning student must be a citizen of the United States and be between the ages of 14 and 23. He must meet certain physical standards prescribed by Air Force and be enrolled as a regular day-student at B.Y.U. Unless he is a veteran he must have twelve quarters of academic study to complete for graduation requirements. To be accepted in the advanced program, the cadet must have completed his basic courses with at least a "C" average. In addition he must pass a written examination for Air Force officer qualification, pass a thorough physical examination, and be selected by a board of officers appointed by the Professor of Air Science and approved by the president of the university. The applicant for the advanced program must also execute a written contract with the government under which he agrees to complete the advanced course, attend the prescribed summer training, and serve his tour of active duty with the Air Force upon completion of the AFROTC program.

The Draft. Students who are enrolled in the AFROTC program may be deferred from the draft after they have satisfactorily completed one quarter of Air Science.

Veterans. A veteran enrolling at this institution with prior college credit who seeks a commission through the AFROTC program may have that part of the basic program waived (maximum both freshman and sophomore years) which corresponds with the academic credit on his record. A veteran must have at least six quarters of academic requirements to complete for graduation to be eligible for AFROTC. He must enroll during his first quarter at B.Y.U. or make arrangements with the Department of Air Science for an appropriate delay to place him in phase. He may not attend school for more than one quarter before he decides to enter the program. A veteran without prior college credit must register for the basic course and follow through the entire program.

Nine hours of military science credit, two hours of health and three hours of physical education are allowed veterans enrolling at B.Y.U.

Extracurricular Activities. AFROTC cadets normally extend their academic and laboratory associations into extracurricular activities. These include the Arnold Air Society for qualified basic and advanced cadets, the Drill Team for basic cadets, AFROTC Chorus, Band, Rifle Team, and the annual Military Ball for all cadets. Cadet associations and friendships formed during this program have many continuing values after college.

Orientation Flights. A comprehensive program of orientation flights in United States Air Force aircraft is carried on during each school year. Each cadet has the opportunity of visiting Air Force bases and aircraft assembly plants. These flights, as well as those carried on in jet aircraft at summer training, are conducted by experienced Air Force pilots at no charge to the cadet. On overnight cross-country flights, cadets pay for their own meals and are charged a minimum housing fee when billeted at government installations. Cadets are also responsible for their own expenses if unpredictable delays occur and if housing is not available.

Flying Instruction Program. A flying instruction program administered by highly-qualified civilian instructors is held off-campus at a local flying school. A senior cadet who has qualified for pilot training is eligible for this program.

Flying instruction is given the cadet at no charge. Thirty-six and one-half hours of instruction and flying time are given the cadet. This qualifies him for a private pilot's license.

Discipline. AFROTC students, as cadets, are civilians and are not subject to the Uniform Code of Military Justice. Disciplinary training in the Cadet Corps is formulated and administered by the cadets themselves. Cadets are subject to the rules and regulations of the Department of Air Science as well as those of the institution. Violation of these rules may mean discharge from the AFROTC program, but does not mean that students must leave college. It will, however, result in the cancellation of their draft deferment. Disciplinary matters are handled by the Dean of Students.

Period of Non-Attendance. Students enrolling in AFROTC who enter college on a five-year program are given a year of non-attendance between their basic and advanced courses. During this period cadets remain deferred from the draft. They must, however, attend Leadership Laboratory.

L.D.S. Missions. Students called on L.D.S. missions will be released from the AFROTC program and upon their return will be accepted back into the program if they meet all the conditions in force at the time of their return.

Uniform Allowance and Text Books. All items of uniform and all academic texts for the four-year program are issued to the cadet at no charge. A fine library of military books and supplemental references for his academic studies is available to him. If selected for the advanced course, he receives an officer's uniform which he retains as his personal property upon successful completion of the program. During his advanced two years the cadet receives from the government subsistence at the rate of 90c per day while he is in school. This amounts to approximately \$80.00 per quarter or \$525 in cash payments for the two years.

Course Fee Deposit. A \$14.00 deposit is required of each student at the beginning of each school year. The purpose of this fee is to protect the United States Government and the university from loss of textbooks and articles of uniform. A \$1.50 course fee per quarter is withheld from this deposit. At the end of each school year approximately \$9.50 is returned to the student, providing there has not been a loss of uniform or books.

Lower Division Courses

110, 111, 112. (Air Science I). Foundations of Air Power -1. (2:2:1 ea.) A.W.S. Staff

Freshman year. A general survey of air power designated to provide the student with an understanding of the elements of air power and basic aeronautical science.

220, 221, 222 (Air Science II). Foundations of Air Power -2. (2:2:1 ea.) A.W.S. Staff

Sophomore year. A year-long survey of the developments of aerial warfare, with emphasis on principles of war, concepts of employment of forces, and changing weapon systems. Treatment of aerial warfare covers targets, weapon systems, delivery vehicles, bases and operations.

Upper Division Courses

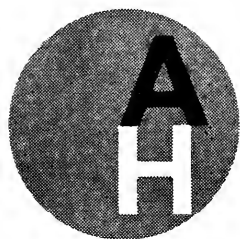
301, 302, 303 (Air Science III). Air Force Officer Development. (3:4:1 ea.) A.W.S. Staff

Junior year. A year-long treatment of the knowledge and skills required of a junior officer in the Air Force with special emphasis on staff duties and leadership. Includes Air Force leadership doctrine, staff organization and functions, communicating, instructing, problem solving techniques, leadership principles and practices, and the military justice system.

412, 413, 414 (Air Science IV). Leadership and Air Power Concepts. (3:4:1 ea.)
A.W.S. Staff

Senior year. Principles of leadership and management, military aspects of world political geography, military career guidance, military aviation and the evolution of warfare, briefing for commissioned service.

Animal Husbandry



Professors: L. Morris (chairman, 150B), C. Cannon.

Associate Professor: G. S. Richards.

Assistant Professors: Shumway, Hoopes.

Instructor: Mikkelsen.

The Department of Animal Husbandry offers training for the following activities: (1) practical livestock farming and operation, (2) livestock and herd managers, (3) commercial and government agricultural positions, (4) pre-veterinary preparation, (5) preparation for study toward the M.S. or Ph.D. degrees, and (6) agricultural teaching when program is planned in that direction.

A student may specialize in one of three areas of the animal sciences or in a combination of all three. He may specialize in the study of meat animals (beef, sheep and swine), dairy husbandry, or poultry husbandry; but all majors must take the following courses in Animal Husbandry: 120, 161, 170, 207, 208, 215, 291, 311, 592, 593. The student may then elect the remainder of his major from the courses of his choice in the animal husbandry field. A minimum of thirty-six hours is required for an animal husbandry major.

Animal Husbandry majors are encouraged to take more than the required number of hours needed for graduation in both the physical and biological sciences. (See "General Requirements for Graduation" near the front of this catalog).

Animal Husbandry students are required to take one or more courses from each of the following areas:

Agricultural Economics 101, 123, 125 or 325, 410.

Agronomy 141, 251.

Horticulture 101, 102, 103, 310.

Students planning to return to the farm or do service work should fill elective courses from the following areas (course numbers merely suggested) depending on specific likes and desires:

Agricultural Economics 123, 320, 360, 410, 425.

Agronomy 260, 262, 305, 451, 455.

Bacteriology 121.

Botany 101, 145, 410, 430, 455, 462, 466.

Industrial Arts 103, 120, 125, 150, 205, 307, 308, 365, 401.

Journalism 211, 571.

Speech 101 or 102, 121.

Requirements for those students preparing for a pre-veterinary program are listed under the College of Biological and Agricultural Sciences in this catalog.

Students planning to do graduate work should elect from the following courses:

Agricultural Economics 530, 531.

Bacteriology 121, 301, 371, 501.

Botany 101, 355.

Chemistry 111, 112, 113, 330, 384, 351, 352, 353, 581, 582, 583.

German 101, 102, 103.

Mathematics 111, 112, 231.

Zoology 105, 164, 176, 263, 365, 370, 373, 376, 417.

The schedule shown below is a suggested outline for animal husbandry majors:

Freshman Year				Sophomore Year			
	A	W	S		A	W	S
An. Hus. 207, 215, 120	5	5	3	An. Hus. 161, 170	4	4	
Zoology 105	5			An. Hus. 208			4
English 111, 112, 113	3	3	3	Agronomy 141 or 251		4	
Religion	2	2	2	Ag. Econ. 123, 125, 410	3	3	
Phys. Ed.	1	1	1	Chem. 101, 102, 103 or			
Hort. 101 or 310		3		111, 112, 113	5	5	5
Health 130			2	Hort. 102 or 103			3
Agronomy 141 or 251			4	Religion	2	2	2
Electives or AFROTC	2	4	3	Electives or AFROTC	4		4
Total Hours	18	18	18	Total Hours	18	18	18

Lower Division Courses

- 102x. History of Breeds of Livestock.** (5) Home Study only. Richards
- 120. Livestock Judging and Selection.** (3:2:4) S. Shumway
A study of animal types and their relation to the functions of animals.
- 161. Elements of Dairying.** (4:3:3) A. Home Study also—5 credits. Richards
General principles of breeding, feeding, and management of dairy cattle.
- 162, 163, 164. Dairy Husbandry Practices.** (1-2:Arr.:Arr.) A.W.S. Prerequisite: Animal Husbandry 161 or concurrent registration. Richards
Each student is required to feed, care, manage, and milk his own cows at the university laboratory area. Feeding, sanitation, and management will be stressed.
- 166. Dairy Judging and Selection.** (3:2:4) A. Not taught in 1959-60. Richards
A critical study of dairy types and productive functioning.
- 170. General Poultry.** (4:3:2) A.W. Home Study also—3 credits. Morris
A general course dealing with problems of feeding, housing, and management.
- 171. Poultry Practices.** (1-2:0:7) A.W.S. Prerequisite: Animal Husbandry 170. Morris
Project and laboratory experience in raising broilers and young stock.
- 207. Feeds and Feeding.** (5:5:0) A.W. Home Study also. Shumway
Principles of nutrition and their applications to all types of farm animals.
- 208. Fitting and Showing Livestock.** (4:2:6) S. Richards
Demonstrations and discussions involving preparation of each type of livestock for show. Each student will be assigned animals to fit and show at one of the spring shows and the campus livestock show.
- 215. Fundamentals of Animal Breeding.** (5:5:0) A.W. Richards
A study of the principles involved in breeding farm animals, including physiology of reproduction, heredity and variation, selection and systems of breeding.
- 291. Animal Husbandry Survey.** (1:1:0) A. Cannon
An analysis by agricultural leaders regarding the future of animal agriculture.

Upper Division Courses

- 311. Animal Physiology and Anatomy.** (5:5:0) A. Prerequisite: Zoology 107. Hoopes
A study of the construction and functions of the animal body by systems. Emphasis is placed on the digestive and reproductive systems.
- 312. Animal Diseases.** (5:5:0) W. Prerequisite: Animal Husbandry 311; Recommended prerequisite: Bacteriology 121. Hoopes
Principles of animal sanitation in relation to disease prevention, with emphasis placed on the stockmen's approach to animal disease control.
- 313. Animal Diseases Laboratory.** (2:0:4) S. Prerequisite: Animal Husbandry 312. Hoopes
Laboratory and field approach to animal sanitation, recognition of disease, disease prevention and control.
- 325. Meats and Meat Preparation.** (3:0:6) W. Home Study also. Hoopes
Care of the meat from slaughter to packaging, inspection of slaughtering and meat plants, processing, meat judging and selection.
- 330. Horse Husbandry.** (2:0:4) S. Hoopes
A brief study of breeds of horses, with emphasis on feeding, training, and management.
- 335. Beef Production.** (4:3:3) S. Home Study also. Prerequisite: Animal Husbandry 207. Shumway
The problems of breeding, feeding and management of range cattle, feeder cattle and purebreds.
- 337, 338, 339. Beef Husbandry Practices.** (1-2:Arr.:Arr.) A.W.S. Staff
Each student is required to feed, manage, and care for a designated number of beef animals.
- 340. Sheep Production.** (3:2:3) S. Prerequisites: Animal Husbandry 207, 215. Shumway
Feeding, care and management of farm and range sheep.
- 341. Sheep Husbandry Practices.** (1-2:Arr.:Arr.) A.W.S. Shumway
Each student is assigned a definite number of sheep for which he is required to care as well as to keep records of feed consumption, gains, etc.
- 345. Swine Production.** (3:2:3) W. Home Study also. Prerequisites: Animal Husbandry 207, 215. Shumway
Breeding, feeding, and management of swine on western farms.
- 346. Swine Husbandry Practices.** (1-2:Arr.:Arr.) A.W.S. Shumway
This course consists of practices in the care, feeding, and management of growing and fattening swine.
- 362. Pedigree and Herd Book Study.** (2:2:0) W. Prerequisite: Animal Husbandry 215. Richards
Interpretation of pedigrees and research in herd books of the major breeds of livestock.
- 365. Milk and Milk Processing.** (5:3:4) A. Hoskisson
Modern methods of producing, grading, and processing dairy products.
- 370. Poultry Management.** (3:2:2) W. Morris
The management and business phases of poultry production. Problems involved in managing laying flocks, broilers, and replacement pullets.
- 373. Poultry Diseases.** (3:3:0) A. Hoopes
A general treatise of poultry diseases, their control and treatment.

- 378. Turkey Management.** (3:2:2) S. Morris
The principles, practices, and problems of turkey production, including brooding, feeding, growing and marketing.
- 420. Advanced Judging.** (3:0:6) A. Prerequisite: Animal Husbandry 120. Shumway
Advanced work in livestock judging. The judging team will be picked from this class.
- 427. Advanced Feeding** (4:3:3) W. Prerequisite: Animal Husbandry 207. Shumway
A study of the newer knowledge of nutrition and its application to livestock.
- 436, 437. Advanced Beef Husbandry Practices.** (1-2:Arr.:Arr.) A.W.S. Shumway
This course deals primarily with care and management of the beef breeding herd.
- 446, 447. Advanced Swine Husbandry Practices.** (1-2:Arr.:Arr.) A.W.S. Shumway
Care and management of the brood sow prior to, during, and the six to eight weeks following farrowing.
- 460. Dairy Production.** (4:3:3) W. Richards
Advanced work in feeding, breeding, and milk secretion.
- 463. Artificial Insemination.** (3:2:3) S. Prerequisite: Animal Husbandry 215. Richards
Methods and techniques of artificial breeding are studied and accompanied by laboratory work.
- 464, 465, 466. Advanced Dairy Husbandry Practices.** (1-2:Arr.:Arr.) A.W.S. Richards
Specific instruction and responsibility are given in modern milking methods, care and handling of milk, the pregnant cow, young calf, the fresh cow, and lactating cows.
- 477. Poultry Feeding.** (3:2:2) A. Prerequisite: Animal Husbandry 170. Morris
The principles of nutrition as they apply to all types of poultry.

Advanced Undergraduate or Graduate Courses

- 515. Advanced Animal Breeding.** (3:3:0) S. Richards
- 564. Secretion of Milk.** (3:3:0) A. Staff
- 571. Advanced Poultry Practices.** (1-3:0:3-9) A.W.S. Morris
- 592. Current Problems.** (2:2:0) W. Cannon
A critical review and analysis of current research, findings and methods in animal agriculture.
- 593. Seminar.** (1:1:0) S. Cannon

Graduate Courses

- 601. Experimental Techniques and Design.** (3:0:9) A.W.S. Staff
- 607. Advanced Nutrition of Ruminants and Non-Ruminants.** (3:3:0) W. Shumway
- 660. Advanced Livestock Management.** (3:1:4) A.W.S. Staff
- 691, 692, 693. Animal Husbandry Research.** (1-3:0:3-9 ea.) A.W.S. Staff
- 694, 695, 696. Animal Husbandry Research.** (1-3:0:3-9 ea.) A.W.S. Staff
May include research in breeding, diseases, artificial insemination, or nutrition in dairy husbandry, poultry husbandry, or animal husbandry.

699. Thesis for Master's Degree. (Arr.) A.W.S.Su.

Staff

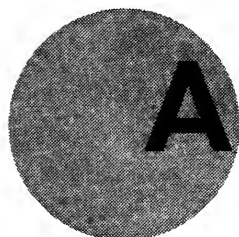
The following courses also count for graduate credit in Animal Husbandry:

Agricultural Economics 530. Intermediate Statistics. (3:2:1)

Agricultural Economics 531. Advanced Statistics. (3:2:1)

Associate Professor: Jakeman (chairman, 203 ESC).
Assistant Professor: R. T. Christensen.

Archaeology



A major in archaeology requires the completion of 40 hours of work in this department, including courses 150, 221, 241, 310, 327, 360, 376, 531, 551, 571, and 594. A major in this field will prepare the student for postgraduate specialization in either (1) Old World archaeology and ancient history or (2) American archaeology and anthropology, leading to teaching and/or research and writing in these areas. For fullest preparation, a minor in history is recommended (including History 110, and either the series of 300, 304, 307, 340, and 388 for specialization in Old World archaeology and ancient history or the series of 350, 353, 364, and 388 for specialization in American archaeology and anthropology); also recommended are a minor in French or German (for specialization in Old World archaeology and ancient history) or Spanish (for specialization in American archaeology and anthropology), and the following courses in other departments: Geology 103, Geography 105 and 303, Sociology 111 and 460, Speech 101, English 215 and 216, Art 101, 259, and 403, and Physics 177.

A minor in archaeology requires the completion of 20 hours in this field including courses 150, 221, 310, and 360.

Credit in religion as well as humanities and aesthetics may be obtained for courses 310 and 360. (See Archaeology in the Division of Religion.)

In this department, courses not offered this year will be given the following year.

Lower Division Courses

- 150. Introduction to Archaeology.** (4:4:0) A.W.S. (G-HA) Staff

The aims, methods, and fields of archaeology, the science that reconstructs the early history of man from the evidence of his actual material remains. Special attention is given the important bearing of archaeology upon the scriptures.

- 221. Peoples and Culture.** (4:4:0) W. (G-HA) Recommended prerequisite: Archaeology 150 or History 110. Christensen

An introduction to ethnology (the study of peoples) and cultural anthropology (the study of human culture). Special attention is given the characteristics of ancient cultures, i.e. the civilizations or cultures brought to light by archaeology.

- 241. The Races of Man.** (2:2:0) S. Jakeman

A further course in ethnology, and an introduction to physical anthropology. The ancient and living peoples of the world will be classified as to physical type (the ancient according to the evidence of archaeology), with special attention to the peoples of the Bible.

Upper Division Courses

- 310. General Near Eastern and Biblical Archaeology.** (3:3:0) A.W.S. Home Study also. (†G-HA; †G-R) Prerequisite: Archaeology 150 or History 110 or consent of instructor. Christensen

A survey of the discoveries of archaeology in Mesopotamia, Egypt, Palestine, and other Near Eastern lands that have brought to light the ancient oriental civilizations, with special attention to the discoveries bearing upon the Bible.

- 318. General Classical Archaeology.** (3:2:2) Not given this year. (†G-HA) Prerequisite: History 110. Recommended prerequisites: History 304 and 307. Jakeman

A survey of the archaeological sites and antiquities of Greece, Italy, and other Mediterranean lands, illustrating the development of the classical Greek and Roman civilization.

- 327. General Prehistoric Archaeology of the Old World.** (3:2:2) Not given this year. Prerequisite: Archaeology 221; recommended prerequisites: Archaeology 241 and Sociology 460. Christensen

A survey of the findings of archaeology relating to the early culture history of man in the Old World before the beginning of written history, with an introduction to primitive and ancient technology.

- 360. Ancient Civilizations of America.** (3:3:0) A.W.S. (†G-HA; †G-R) Prerequisite: Archaeology 150 or consent of instructor. Jakeman

A survey of the discovered archaeological history of the New World, followed by a study of the important problem of the origin of its ancient civilizations, with special attention to the claims of the Book of Mormon.

- 376. Indians of the Americas.** (3:3:0) A. Recommended prerequisite: Archaeology 221, 241, and 360. Christensen

A course in American ethnology. The aim is to give the student a picture of the American Indians at the time of the coming of the Europeans.

- 388. Early Peoples of Middle America.** (3:2:2) Not given this year. Recommended prerequisites: Archaeology 360 and 376. Jakeman

A study in the ethnology and ancient history of Mexico and Central America, especially as to the early peoples and history of the central Mesoamerican or Book of Mormon area, according to the native Indian and Spanish chronicles.

- 455. Archaeology of Middle America.** (3:2:2) Not given this year. Prerequisite: Archaeology 360; recommended prerequisite: Archaeology 388 (may be taken concurrently). Jakeman

The progress and latest results of archaeological research in Mexico and Central America, especially as to the characteristics and history of the ancient civilizations of the central Mesoamerican or Book of Mormon area.

- 465. Archaeology of South America.** (3:2:2) S. Prerequisite: Archaeology 360; recommended prerequisite: Archaeology 376. Christensen

The progress and latest results of archaeological research in South America, especially as to the ancient civilizations and traditional history of the Andean region.

- 475. Archaeology of North America.** (3:2:2) Not given this year. Prerequisite: Archaeology 360; recommended prerequisite: Archaeology 376. Christensen

The progress and latest results of archaeological research in North America north of Mexico, especially as to the prehistoric agricultural peoples of the Southwest and eastern United States.

Advanced Undergraduate or Graduate Courses

- 531. Methods of Archaeological Research.** (2:2:0) Not given this year. Jakeman
The main steps in archaeological research, with special attention to methods of discovery and excavation of ancient sites and composition of the field report.
- 551. Field Archaeology.** (4:0-2:8-4) A. Prerequisite: Archaeology 531. Christensen
Student participation in the actual excavation of a prehistoric Indian mound of Utah Valley and the processing and recording of the excavated material.
- 571. Interpretative Archaeology.** (3:3:0) W. Prerequisite: Archaeology 551; recommended prerequisites: Archaeology 221 and 327, Sociology 460, and English 215 and 216. Christensen
Interpretation of empiric archaeological data as to culture meaning, methods of chronological and historical interpretation, and practice in archaeological ethnography and historiography.
- 590. Museum and Field Studies.** (3-9:0:6-18) A.W.S. Staff
Guided studies at important museums and archaeological sites of the United States or Latin America and a report on these studies.
- 594. Seminar.** (2:2:0) S. Jakeman
Problems and methods of comparative archaeology.
- 596, 597, 598. Readings in Archaeology.** (2:0:6 ea.) A.W.S. Staff
Guided readings and a paper in one to three of the following fields of archaeology: early prehistoric, later prehistoric of the Near East, Mesopotamian and biblical, Egyptian and biblical, Syro-Palestinian and biblical, Aegean and Homeric, classical, later prehistoric of northern Europe, Christian, later prehistoric and historic of eastern Asia, Polynesian, Mesoamerican, Andean, Southwest, later prehistoric of eastern United States, general comparative.

Graduate Courses

- 601. History and Theory of Archaeology.** (2:2:0) Not given this year. Christensen
- 621. Archaeological Surveying.** (2:1:2) Not given this year. Christensen
- 631. Ceramic Typology.** (1:1:0) Not given this year. Jakeman
- 650. Studies in Comparative Stratigraphy: Near East.** (2:0:6) A.W. Staff
- 655. Special Studies in Biblical Archaeology.** (2:0:6) S. Staff
- 660. Studies in Comparative Stratigraphy: Mesoamerica.** (2:0:6) A.W. Staff
- 665. Special Studies in Book of Mormon Archaeology.** (2:0:6) S. Staff
- 671, 672. Maya Hieroglyphics.** (2:0:6 ea.) W.S. Jakeman
- 691. Library Research.** (2:0:6) A.W.S. Staff
- 694. Field or Museum Research.** (3:0:9) Arr. Staff
Guided field or museum research in the Southwest.
- 695. Field or Museum Research.** (5:0:15) Arr. Staff
Guided field or museum research in Mexico or Central America.
- 696. Field or Museum Research.** (8:0:24) Arr. Staff
Guided field or museum research in the Near East (Palestine, Egypt, or Mesopotamia).
- 699. Thesis for Master's Degree.** (Arr.) Staff

These courses also count for credit in Archaeology:

Art 403. Ancient and Primitive Art. (2:2:0)

Biblical Languages 610. The Reading of Ancient Hebrew Inscriptions. (2-3:2-3:0)

Biblical Languages 621, 622, 623. Elementary Akkadian. (2:2:0 ea.)

Biblical Languages 625, 626, 627. Elementary Egyptian. (2:2:0 ea.)

Archaeology

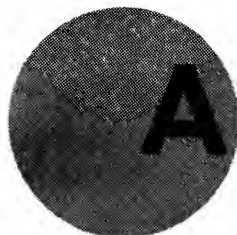
(See also courses in Religious Instruction.)

Professors: de Jong, B. F. Larsen (emeritus).
Associate Mathews (chairman, 312 E), J.
Professors: R. Andrus, Gunn, W. B. Wilson.

Art

Assistant Burnside, D a r a i s, Johansen,
Professors: G. H. Turner.

Special
Instructors: Knell, L. D. Taylor



Students who major in art are required to complete twelve hours in the following sequence before taking upper division work: Art 111, 121, and 122 or their equivalents. A major in art also includes nine hours in art history and twenty-four hours in one of the seven areas of concentration.

The curriculum for art majors who are concentrating on commercial art and those who are preparing to teach art in the secondary schools may lead either to a Bachelor of Arts or a Bachelor of Science degree. Majors who are concentrating on crafts, graphics, interior design, painting or sculpture will work toward a Bachelor of Arts degree.

Art students intending to teach art on the secondary level must plan the following sequence of courses beginning seven quarters before graduation, or four quarters before graduation on the block plan, or extend certification requirements beyond the senior year. The student should note that courses offered in this sequence through the Art Department are offered only once during the year. This is termed "cycle one" by the College of Education. Student teachers in art are also required to have a teaching minor.

Plan One

Sophomore year
 Spring Quarter E.R.S. 403
 Junior year
 Autumn Quarter Art 377
 Winter Quarter Art 478
 Spring Quarter Art 479
 Senior year
 Instr. 450, Ed. Phil. 415
 Health 362 and Ed. Adm. 310 may be
 taken any quarter.

Plan Two

Junior year
 Spring Quarter E.R.S. 403
 Senior year
 Autumn Quarter Art 377
 Winter Quarter Art 478
 Spring Quarter Art 479
 Summer Quarter Instr. 450,
 Ed. Phil. 415

The courses in art are presented under the following divisions:

Commercial Art: 239, 240, 340, 341, 342, 343, 447, 448, 544, 545, 546.
 Crafts: 259, 263, 359, 360, 361, 362, 366, 567.
 Design and Advanced Design: 110, 111, 310, 311.
 Drawing and Advanced Drawing: 121, 122, 321, 322.
 Graphics: 250, 350, 351, 352.
 History and Appreciation: 101, 303, 304, 305, 406, 407, 408, 501.
 Interior Design: 313, 314, 415, 416, 417.
 Painting: 227, 233, 327, 328, 329, 333, 334, 335, 474, 475, 476, 580, 581,
 582, 586, 587, 588.
 Sculpturing: 256, 356, 357, 358.

Areas of Concentration

Courses numbered 300 and above

Commercial Art	
	Hours
Commercial Art	8
Design	2
Drawing	2
Graphics	2
Painting	7
Photography	3
Marketing or equivalent	5

Total Hours 29

Crafts	
	Hours
Crafts	8
Design	2
Drawing	2
Graphics	2
Interior Design	2
Painting	4
Sculpture	2
Elective	2

Total Hours 24

Graphics	
	Hours
Graphics	8
Crafts	2
Design	2
Drawing	2
Interior Design	2
Painting	4
Sculpture	2
Elective	2

Total Hours 24

Sculpture	
	Hours
Sculpture	8
Crafts	2
Design	2

Drawing	2
Graphics	2
Interior Design	2
Painting	4
Elective	2
Total Hours	24

Interior Design	
	Hours
Interior Design	9
Crafts	2
Drawing	2
Graphics	2
Painting	7
Sculpture	2
Total Hours	24

Teaching Art	
	Hours
Crafts	8
Advanced Design	2
Commercial Art	4
Graphics	2
Interior Design	2
Painting	4
Sculpture	2

Total Hours 24

Painting	
	Hours
Painting	8
Crafts	2
Design	2
Drawing	4
Graphics	2
Interior Design	2
Sculpture	2
Elective	2

Total Hours 24

The minimum requirements for a teaching minor in art for secondary schools should include:

Drawing	4 to 6
Design	4
History of Art	3
Crafts	2 to 4
Commercial Art	2

Painting	4
Sculpture	2
Interior Design	2
Graphics	2
Total Hours	27

Lower Division Courses

101. Introduction to Art. (2:2:0) A.W.S. (G-HA)

Turner

Recommended for everyone who desires a better understanding of and a greater appreciation for painting, sculpture, architecture, and other graphic and plastic arts. (Not for art majors)

- 110. Theory and Practice of Design.** (2:2:2) A.W.S. Evening School also. (G-HA) Gunn, Staff
Study of the fundamental principles of art affecting the use of form, color, and texture in structural design and decoration. (Not for art majors.)
- 111. Basic Design.** (4:4:4) A.W.S. (G-HA) Staff
Application of the principles of design in use of plastic and graphic materials. (Either 110 or 111 may be counted as G-HA credit, but not both.)
- 112x. Color and Design.** (2) Home Study only. Not designed for students who have had 111. Wilson
A study, through experience, of the elements and principles of design with emphasis on the use of color.
- 121. Elementary Drawing.** (4:4:4) A.W.S. Home Study also. (G-HA) Staff
Drawing with various media. Emphasis on development of perceptive skill, experience in organization, and representation of the elements of visual communication.
- 122. Elementary Figure Drawing.** (4:4:4) A.W.S. Home Study also. (G-HA) Andrus, Gunn
Drawing from the model. Study of and experience with the elements of graphic expression. Form is emphasized.
- 226. Art for Elementary Teachers.** (3:3:0) W. Home Study also. Staff
Materials and procedures for stimulating and guiding children in various phases of art in the elementary school.
- 227. Oil Painting.** (2:2:4) A.W.S. (G-HA) Turner
Introduction to the use of oil colors as a medium of expression.
- 233. Water Color Painting.** (2:2:2) A.W.S. Evening School also. (G-HA) Turner
Survey and application of the various techniques of water color painting.
- 239. Pen Lettering.** (2:0:2) A.W.S. Home Study also. Staff
Study of basic pen alphabets.
- 240. Brush Lettering.** (2:2:2) A.W.S. Home Study also. Gunn
Study of brush manipulation and letter structure for display advertising.
- 250. Print Making.** (2:2:4) A.W.S. Andrus
Introduction to woodcut, engraving, etching, lithography, and silk screen.
- 256. Sculpture.** (2:2:4) A.W.S. (G-HA) Wilson
Exploratory experiences in a variety of sculpture material.
- 259. Ceramics.** (2:2:4) W. Home Study and Evening School also. (G-HA) Wilson
Ceramics and pottery with clay as the basic medium.
- 263. Crafts.** (2:2:4) A.W.S. Evening School also. (G-HA) Staff
Leather, wood, plastics, and other media used as a basis for creative design.

Upper Division Courses

- 306. Art History and Appreciation.** (3:3:0) A.W.S. Home Study also. (G-HA) Mathews
- 307. Contemporary Art.** (3:3:0) W. (G-HA) Mathews
The rise and progress of contemporary art in Europe and America.
- 308. American Art.** (3:3:0) (G-HA) Burnside
History and evaluation of painting, sculpture, architecture, and industrial arts in America.

310. **Advanced Design.** (3:2:0) A. Darais
A study of art structure as a means for expression of ideas and emotions.
313. **Home Planning.** (2:2:0) W. Knell
Application of principles of design to home planning.
314. **Interior Design.** (2:2:0) A.S. Taylor
Decorative and functional features of the interior of the home.
315. **Interpretive Drawing.** (2:2:2) W. Home Study also. Darais
Advanced work in drawing with emphasis on development of individuality of expression.
316. **Mural Design.** (2:2:4) S. Prerequisite: Art 310. Darais
Principles of design applied to mural decoration.
322. **Figure Drawing.** (2:2:2) A.W.S. Andrus
Drawing from the model with emphasis on structure and expressive elements.
- 327, 328, 329. **Oil Painting.** (2:2:4 ea.) A.W.S. 328—Evening School also. Turner
Outdoor, still life, and landscape painting is emphasized in the autumn, winter, and spring terms respectively.
- 333, 334, 335. **Water Color Painting.** (2:2:2 ea.) A.W.S. 334—Evening School Turner
also.
Landscape, still life, and figure composition are emphasized in the autumn and winter, outdoor sketching in the spring.
340. **Lettering.** (2:2:2) A.W. Prerequisite: Art 239 or 240. Gunn
Skills and letter structure for lettering to be reproduced for the printed page.
341. **Layout.** (2:2:2) A. Prerequisite: Art 140. Gunn
Design principles that pertain to the organization of elements on the printed page.
342. **Illustration.** (2:2:2) W. Gunn
Black and white illustration in brush and ink, watercolor, scratchboard, and related techniques for line and half-tone reproduction.
343. **Fashion Illustration.** (2:2:2) S. Home Study also. Gunn
Fashion drawing in various media.
350. **Engraving and Woodcut.** (2:2:4) A. Andrus
Work in relief print making.
351. **Etching and Lithography.** (2:2:4) W. Andrus
Work on copper and zinc, employing aquatint, intaglio and soft ground, and use of lithographic stone.
352. **Silk Screen.** (2:2:4) S. Andrus
Preparation of various types of stencils for print making and commercial work.
- 356, 357, 358. **Sculpture.** (2:2:4 ea.) A.W.S. Wilson
Use of clay as an expressive medium; modeling the full figure; plaster casting; sculpturing in stone and bronze.
- 359, 360, 361. **Ceramics.** (2:2:2 ea.) A.W.S. 360—Evening School also. Wilson
Work in all phases of ceramics, designing through firing.
362. **Textile Design.** (2:2:2) A.W.S. Johansen
Silk screen, block printing, stenciling, painting, and dyeing as media for textile design.

- 366. Metalwork and Jewelry.** (2:2:2) W. Evening School also. Johansen
Copper, silver, wood, enameling in creative design.
- 403. Ancient and Primitive Art.** (2:2:0) A. Home Study and Evening School
also. (G-HA) Mathews
Introduction to the history of art from prehistoric time to the early
Christian era. Primitive art forms are also studied.
- 404. Medieval Art.** (2:2:0) W. (G-HA) Burnside
Study of architecture, painting, and sculpture from the dissolution of
the Roman Empire to the Renaissance.
- 405. Renaissance Art.** (2:2:0) S. (G-HA) Burnside
Study of the history of art through the Renaissance and to the close of
the eighteenth century.
- 415, 416, 417. Interior Design.** (3:3:0 ea.) A.W.S. Evening School also. Taylor
History of interior design. Study of period furnishings. Practical study of
manufacture, design, installation, and care of media and materials used
in interior design.
- 447. Portrait Photography.** (3:2:3) W. Staff
General portrait studio procedures, including retouching, portrait dark-
room techniques. Emphasis on the plastic quality of light on the human
face and figure.
- 448. Pictorial Photography.** (3:2:3) S. Staff
Study of art structure in its application to photography. Practical ex-
perience in photographing the landscape, still-life, and human figure.
- 474, 475, 476. Portrait and Figure Painting.** (2:0:4 ea.) A.W.S. Andrus
Painting in oil and mixed media from the model; emphasis upon design
and the development of an expressive style.

Advanced Undergraduate or Graduate Courses

- 501. Aesthetics.** (3:3:0) W. (G-HA) de Jong
Theoretical and practical criteria of aesthetic values.
- 544, 545, 456. Advanced Commercial Art.** (2:2:4 ea.) A.W.S. Gunn
Professional standards in advanced lettering, illustration, and layout are
emphasized. In the third quarter, commercial art experience is correlated
with a practicing agency for students judged proficient by a faculty com-
mittee.
- 567. Wood Carving.** (2:2:2) S. Wilson
Bas-relief and carving in the round with emphasis on design.
- 580, 581, 582. Mural Painting.** (2:2:4 ea.) A.W.S. Darais
Historical backgrounds, mural design, mural painting.
- 586, 587, 588. Studio Art.** (1-4:1-4:2-8 ea.) Staff

ART EDUCATION

- 226. Art for Elementary Teachers.** (3:3:0) A.W.S. Gunn, Jensen,
Mathews, Wilson
Materials and procedures for stimulating and guiding children in various
phases of art in the elementary school.
- 377. Secondary Teaching Procedures.** (4:4:3) A. Prerequisite: E.R.S. 403. Gunn
For course description and fees see Instruction 377.
- 478. Unit Planning and Teaching.** (4:3:5) W. Prerequisite: Art 377. Gunn
For course description and fees see Instruction 478.

479. **Secondary Student Teaching.** (7:1:20) S. Prerequisite: Art 478. Gunn
For course description and fees see Instruction 479.

Graduate Courses

- | | |
|--|----------|
| 602. Composition. (Arr.) W. | Turner |
| 611. Contemporary Mural Design. (Arr.) W. | Darais |
| 615. Period Furnishing. (3:3:0) A. | Taylor |
| 616. Decorative Material for Interior Design. (3:3:0) W. | Taylor |
| 617. Practical Problems in Interior Design. (3:3:0) S. | Taylor |
| 621, 622, 623. Advanced Drawing and Painting. (Arr.) A.W.S. | Andrus |
| 624, 626. Landscape Painting. (Arr.) A.S. | Turner |
| 625. Still-Life Painting. (Arr.) W. | Turner |
| 627, 628, 629. Pictorial Composition. (Arr.) A.W.S. | Turner |
| 633, 634, 635. Advanced Water Color Painting. (Arr.) A.W.S. | Turner |
| 639. Lettering and Layout for Reproduction. (Arr.) A.W.S. | Gunn |
| 642. Various Media in Illustration. (Arr.) W. | Gunn |
| 650. Experimental Relief Printing. (Arr.) A. | Andrus |
| 651. Color Lithography and Etching. (Arr.) W. | Andrus |
| 652. Seriography. (Arr.) S. | Andrus |
| 656, 657, 658. Advanced Sculpture. (Arr.) A.W.S. | Wilson |
| 665. Ceramics. (Arr.) A.W.S. | Wilson |
| 666. Metal Work and Jewelry. (Arr.) W. | Johansen |
| 667. Wood Sculpture. (Arr.) S. | Wilson |
| 668. Teaching Art in Secondary Schools. (3:3:0) W. | Staff |
| 671. Survey of Recent Studies in Art Education. (3:3:0) A. | Gunn |
| 674, 675, 676. Portrait and Figure Design and Painting. (Arr.) A.W.S. | Andrus |
| 680, 681, 682. Design and Painting Mural Types. (Arr.) A.W.S. | Andrus |
| 683, 684, 685. Studio Art. (Arr.) A.W.S. | Staff |
| 686, 687, 688. Studio Art. (Arr.) A.W.S. | Staff |
| 690, 691, 692. Color. (2:2:4 ea.) A.W.S. | Andrus |
| 695. Seminar. (1:1:0) A.W.S. | Mathews |
| 699. Thesis for Master's Degree. (Arr.) A.W.S. | Staff |

These courses also count in Art:

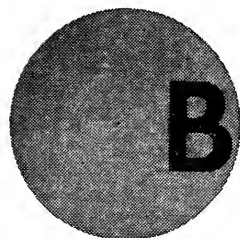
Industrial Arts 464. Plastics. (2:0:4)

Business Management 347. Principles of Marketing. (5:5:0)

Business Management 455. Advertising. (5:5:0)

Professor: J. V. Beck.
Associate Professor: D. H. Larsen* (chairman, 124 B),
Donaldson.
Assistant Professor: Hoskisson, Sagers.
Instructor: Chugg.
Special Instructors: Call, Carlquist, LeCheminant.

Bacteriology



Bacteriology is one of the subjects comprising the composite major in biological science designed for prospective teachers.

Medical technology is under the direction of the Department of Bacteriology. The adviser is Professor Donaldson.

The minimum requirements for a major in bacteriology are completion of the following courses or their equivalents in bacteriology and supporting fields: bacteriology, 33 hours; zoology or botany, 10 hours; Chemistry 101, 102, 104, 220, 284; and Mathematics 111. Recommended courses in supporting fields are Botany 101, 410, 535; Chemistry 111, 112, 113, 221, 351, 352, 353, 581, 582, 583; Mathematics 111, 112, 231, 232, 233; Physics 111, 112, 113; Zoology 105, 164, 176, 417.

The following curriculum is recommended for students who want adequate preparation for post-graduate university training in bacteriology. The courses of physics, advanced mathematics, and advanced chemistry may be replaced by other courses in the physical or biological sciences for students who do not plan on graduate work.

Freshman Year

	A	W	S
Chemistry 111, 112, 113	5	5	5
Math. 111, 112	5	5	
English 111, 112, 113			
or 115, 116	3	3	3
Religion	2	2	2
Physical Education	1	1	1
Health			2
Social Science			5
Total Hours	16	16	18

Sophomore Year

	A	W	S
Chemistry 221	5		
Physics 111, 112, 113	5	5	5
Zoology or Botany		5	5
History 170		5	
Social Science	5		
Religion	2	2	2
Elective			5
Total Hours	17	17	17

Junior Year

	A	W	S
Bacteriology 301, 501, 502 ..	5	5	5
Chemistry 351, 352, 353	5	5	5
Mathematics 231, 232	5	5	
English 250			4
Religion (Humanities)	3	3	3
Total Hours	18	18	17

Senior Year

	A	W	S
Bacteriology 511, 551	5	5	
Bacteriology 491	1	1	1
Chemistry 581, 582, 583	5	5	5
Religion	2	2	2
Elective (Humanities)	2		
Electives (Bacteriology)	3	5	10
Total Hours	18	18	18

Lower Division Course

121. **General Bacteriology.** (4:3:2) A.W.S. (G-BS) Home Study also—no laboratory, 3 hours credit. Staff
 A study of the general characteristics of microorganisms and their relation to man.

Upper Division Courses

301. **Microbiology.** (5:3:6) A. (G-BS) Prerequisite: any organic chemistry course. Beck
 Introduction to microbiology.
311. **Sanitation and Public Health.** (3:3:0) A.W.S. Home Study also. (G-BS) Staff
 Sanitary and public health practices.
361. **Food Microbiology.** (3:1:4) A. Prerequisite: Bacteriology 121 or 301. Staff
 A study of the microbiology of food.
371. **Dairy Microbiology.** (3:1:4) W. Prerequisite: Bacteriology 121 or 301. Hoskisson
 A study of the microbiology of dairy products.
381. **Water and Sewage Microbiology.** (3:1:4) S. (G-BS) Prerequisite: Bacteriology 301. Staff
 A study of the microbiology of water purification and sewage disposal.
391. **Clinical Pathology.** (3:2:3) S. Prerequisite: Bacteriology 301. Call, LeCheminant
 A study of the theory and application of diagnostic methods employed in hospital laboratories.
- 401, 402, 403. **Applied Clinical Diagnosis Laboratory.** (5:1-3:6-10 ea.) A.W.S. Staff
 Work is done in an approved hospital during a year's practical internship. Hospital selected must be accredited by Council of Medical Education of the A.M.A., and its pathologist and radiographic technician recognized by American Society of Clinical Pathologists. Credit is allowed on basis of a statement from the approved pathologist that student has satisfactorily completed work.
491. **Seminar.** (1:1:0) A.W.S. Staff
495. **Special Problems in Bacteriology.** (Arr.) A.W.S. Staff
 Individual work on research problems. Types of problems selected are based on previous preparation of student.

Advanced Undergraduate or Graduate Courses

501. **Pathogenic Microbiology.** (5:3:6) W. Prerequisite: Bacteriology 301 or consent of the instructor. Larsen
 A study of the characteristics of pathogenic bacteria, viruses, rickettsia, yeasts, and molds.
502. **Pathogenic Microbiology.** (5:3:6) S. Prerequisite: Bacteriology 501. Larsen
 Continuation of Bacteriology 501.
511. **Immunology.** (5:3:6) A. Prerequisite: Bacteriology 501. Donaldson
 Theories of immunity; training in serological methods.
521. **Industrial Microbiology.** (3:3:0) A. Prerequisite: Bacteriology 101 and biochemistry. Larsen
 The role of microorganisms in the production of such products as acids, alcohols, antibiotics, vitamins, and enzymes.

522. **Industrial Microbiology Laboratory.** (2:0:6) A. Prerequisite: concurrent or previous registration in Bacteriology 521. Larsen
531. **Virology.** (3:3:0) W. Prerequisite: Bacteriology 501. Donaldson
Characteristics of viruses and virus diseases.
532. **Virology Laboratory.** (2:0:6) W. Prerequisite: concurrent or previous registration in Bacteriology 531. Donaldson
541. **Cultivation and Nutrition of Bacteria.** (3:1:6) S. Prerequisite: Bacteriology 301. Sagers
A laboratory study of selective enrichment techniques, fundamental nutritional requirements and growth properties of the major taxonomic groups of bacteria.
551. **Advanced Microbiology.** (3:3:0) W. Prerequisite: Bacteriology 301. Beck
Cytology, taxonomy, and bacterial chemistry.
552. **Advanced Microbiology Laboratory.** (2:0:6) W. Prerequisite: concurrent or previous registration in Bacteriology 551. Beck
561. **Radioactive Tracer Techniques in Biology.** (3:1:6) W. Prerequisite: consent of instructor. Beck
581. **History of Bacteriology.** (2:2:0) A. Prerequisite: Senior or Graduate status. Staff

Graduate Courses

611. **Advanced Immunology.** (3:3:0) S. Donaldson
651. **Bacterial Metabolism.** (3:3:0) S. Prerequisite: Bacteriology 551. Beck
A study of bacterial metabolism of carbohydrates, proteins, nucleoproteins, etc.
652. **Bacterial Metabolism Laboratory.** (2:0:6) S. Prerequisite: concurrent or previous registration in Bacteriology 651. Beck
661. **Bacterial Genetics.** (3:3:0) A. Prerequisites: Bacteriology 301, a course in general genetics and chemistry 581, 582, 583, or equivalent. Sagers
A study of genetic processes in bacteria and viruses, with special emphasis on recombination, transduction, mutation, replication mechanisms, and related topics.
691. **Graduate Seminar.** (1:1:0) A.W.S. Staff
695. **Research to Furnish Data for Thesis.** (Arr.) A.W.S. Staff
699. **Thesis for Master's Degree.** (Arr.) A.W.S.

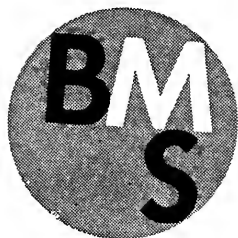
These courses also count in Bacteriology:

- Agronomy 614. **Advanced Soil Microbiology.** (3:3:0)
Botany 535. **Fungi.** (3:1:5)

Banking

(See courses in Business Management.)

Bible and Modern Scripture



Professors: Done, Sperry.

Associate Professors: Ludlow (chairman, 13 PhP).

Assistant Professors: Anderson, Andrus, Bankhead, Barrett, Barron, Bentley, Clark, Doxey, Pearson, Ricks, Rogers.

Instructors: Fitzgerald, Meservy, Rasmussen, Turner.

Courses in the Department of Bible and Modern Scripture are offered to help students meet the religion requirements of the university. An undergraduate major or minor is not offered in this department. A graduate major or minor is offered at both the master's level and doctorate level (See section on College of Religious Instruction).

Lower Division Courses

- 111, 112, 113. Introduction to the Book of Mormon and Its Teachings.** (2:2:0 ea.)
A.W.S. Home Study also. (G-R) Staff
Consideration of origin, content, and teachings of the Book of Mormon. 111 deals with the books of I Nephi, II Nephi, Jacob, Enos, Jarom, Omni, and the Words of Mormon; 112 with the books of Mosiah and Alma; and 113 with the books of Helaman, III Nephi, IV Nephi, Mormon, Ether, and Moroni.
- 123, 124, 125. Introduction to the New Testament and Its Teachings.** (2:2:0 ea.)
A.W.S. Home Study also. (G-R) Staff
123 deals with the life and teachings of Jesus, 124 with the early Church and its writings, and 125 with Paul's life and teachings.

Upper Division Courses

- 301, 302, 303. The Old Testament.** (2:2:0 ea.) A.W.S. Home Study also. (G-R)
Rasmussen, Rogers
Structure and religious content of the Old Testament. An attempt is made to show that Israel's leaders had a vital religious message for the world of today. Course 301 considers Genesis; 302 Exodus, Leviticus, Numbers, Deuteronomy, Joshua, Judges and Ruth; and 303 the remainder.
- 304. The Spirit of the Old Testament.** (2:2:0) S. (G-R) Rasmussen
Analysis of literary problems, religion, and spirit which characterize the Old Testament.
- 311. Israel's Prophets.** (2:2:0) A.W.S. (G-R) Rasmussen, Rogers, Sperry
Messages of Old Testament prophets—major and minor—are examined for the value they have and have had both in our time and in theirs.
- 313. The Life of Christ.** (2:2:0) A. Home Study also. (G-R) Bankhead, Bentley
Consideration of sources for the life of Christ; relationship of political, religious, and geographical environments. Analysis of the Savior's prominent teachings during the Galilean and Judean ministries.
- 314. Paul the Apostle and Missionary.** (2:2:0) W. Home Study also. (G-R)
Bankhead, Bentley
Examination of the life and teachings of the apostle; his missionary problems and their resolution; results of his work.

- 315. The Early Church and Its Writings.** (2:2:0) S. (G-R) Bankhead, Bentley
Analysis of the structure of the New Testament. Consideration of its writings and forces which produced them.
- 322, 323, 324. Doctrines of the Book of Mormon.** (2:2:0 ea.) A.W.S. Home Study also. (G-R) Bankhead, Ludlow, Ricks, Turner
Advanced course dealing with doctrines and teachings of Nephite sacred scripture.
- 331, 332, 333. The Doctrine and Covenants.** (2:2:0 ea.) A.W.S. Home Study also. (G-R) Andrus, Doxey
Study of origin and content of the Doctrine and Covenants. Course 331 deals with Sections 1 through 43, 332 with Sections 44 through 88, and 333 with Sections 89 through 136.
- 338. The Pearl of Great Price.** (2:2:0) A.W.S. Home Study also. (G-R) J. R. Clark
Preliminary study of origin and content of the Pearl of Great Price.
- 339. Doctrines of the Pearl of Great Price.** (3:3:0) A.W.S. (G-R) Home Study also. J. R. Clark
Advanced course dealing with doctrines and teachings of the Pearl of Great Price.
- 344. Teaching the Scriptures.** (2:2:0) A.W.S. L. Anderson
Designed for prospective seminary teachers. Admission by permission of the instructor.

Advanced Undergraduate or Graduate Courses

- 524. Analysis of the Book of Mormon.** (2:2:0) A.W.S. (G-R) Sperry
Critical analysis of Nephite literature.
- 590, 591, 592. Seminar.** (Arr.) A.W.S. Prerequisite: permission of instructor. Staff
For senior or other advanced students who desire to pursue specialized problems related to the Bible and modern scripture.

Graduate Courses

- 601. Literature and Religion of the Old Testament.** (5:5:0) A. Rasmussen, Rogers, Sperry
- 602. The History of Israel.** (5:5:0) A. Rasmussen, Rogers, Sperry
- 603. The Prophets of Israel.** (5:5:0) W. Rasmussen, Rogers, Sperry
- 604. The Canon and Text of the Old Testament.** (3:3:0) A. Staff
- 605. The Apocrypha and Pseudepigraphs.** (3:3:0) W. Nibley
- 606. Hebrew Wisdom Literature.** (3:3:0) W. Staff
- 607. The Manners and Customs of the Hebrews.** (3:3:0) A. Sperry
- 619. Seminar on the Old Testament.** (2-5:2-5:0) Staff
- 621. Literature and Religion of the New Testament.** (5:5:0) A. Staff
- 622. The History of New Testament Times.** (3:3:0) A. Staff
- 623. The Life and Teachings of Jesus.** (5:5:0) W. Sperry
- 624. Paul's Life and Letters.** (5:5:0) S. Sperry
- 625. The General Epistles and the Apocalypse.** (3:3:0) A. Staff

- | | | |
|------|---|-------------|
| 626. | The Text and Canon of the New Testament. (3:3:0) W. | Staff |
| 627. | The Textual Criticism of the New Testament. (3:3:0) W. | Staff |
| 641. | The Gospel and Acts in Greek. (3:3:0) A. Prerequisite: ability to pass departmental examination in Greek. | Nibley |
| 642. | Paul's Epistles in Greek. (3:3:0) W. Prerequisite: ability to pass departmental examination in Greek. | Nibley |
| 643. | The General Epistles and the Apocalypse in Greek. (3:3:0) S. Prerequisite: ability to pass departmental examination in Greek. | Nibley |
| 649. | Seminar on the New Testament. (2-5:2-5:0) | Staff |
| 651. | An Analysis of the Book of Mormon. (5:5:0) A. | Sperry |
| 652. | An Analysis of the Doctrine and Covenants. (5:5:0) W. | Sperry |
| 653. | An Analysis of the Pearl of Great Price. (3:3:0) S. | J. R. Clark |
| 659. | Seminar on Modern Scripture. (2-5:2-5:0) Arr. | Staff |
| 699. | Thesis for Master's Degree. (Arr.) Arr. | Staff |
| 799. | Doctoral Dissertation. (Arr.) Arr. | Staff |

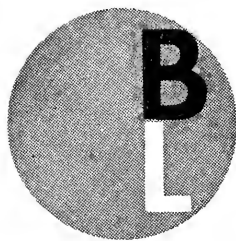
Work in Semitic languages may be applied toward a major in Bible and modern scripture.

The Department of Archaeology offers several courses, especially 655 and 665, which may be of special interest to majors in Scripture.

Professors: Nibley, Sperry (chairman, 120 S).

Instructors: Meservy, Rasmussen.

Biblical Languages



An undergraduate major or minor is **not** offered in this department. A graduate major or minor is offered at the master's level but not at the doctoral level (See section on the College of Religious Instruction).

Advanced Undergraduate or Graduate Courses

511, 512, 513. Elementary Biblical Hebrew. (5:5:0 ea.) A.W.S. No prerequisites.

Rasmussen

Taught as a "living language" for use by those who wish to converse and those who wish to use it as a tool for studying and teaching the Old Testament. Methods and materials for teaching Hebrew in the light of modern language methodology are taught. Open to all who demonstrate linguistic ability.

514, 515, 516. Advanced Hebrew Grammar and Selected Readings from the Old Testament. (3:3:0 ea.) A.W.S. Prerequisite: Courses 511, 512, 513 or equivalent.

Rasmussen

Graduate Courses

601, 602, 603. Selections from the Wisdom Literature, Major and Minor Prophets, and Psalms. (2-5:2-5:0 ea.) A.W.S. Prerequisite: two years of Hebrew or consent of instructor.

Rasmussen, Sperry

607, 608, 609. Biblical Aramaic and the Targums. (2:2:0 ea.) A.W.S. Prerequisite: two years of Hebrew or consent of instructor.

Sperry

610. The Reading of Ancient Hebrew Inscriptions. (2-3:2-3:0) Given on request. Prerequisite: two years of Hebrew or consent of instructor.

Sperry

611, 612, 613. Elementary Syriac. (3:3:0 ea.) A.W.S. Prerequisites: 511, 512, 513.

Sperry

614, 615, 616. Advanced Syriac. (2:2:0 ea.) A.W.S.

Sperry

621, 622, 623. Elementary Akkadian. (2:2:0 ea.) A.W.S. Prerequisite: two years of Hebrew or consent of instructor.

Sperry

625, 626, 627. Elementary Egyptian. (2:2:0 ea.) A.W.S. Prerequisite: two years of a Semitic language or consent of instructor.

Staff

Hieroglyphics.

699. Thesis for Master's Degree. (Arr.) Arr.

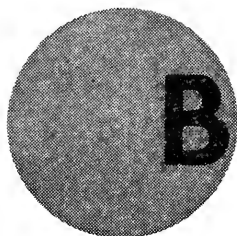
Staff

Botany

Professor: Harrison.

Associate Professor: McKnight (chairman, 233 B), E. M. Christensen.

Assistant Professor: Moore, Murdock*, Stutz.



A major in botany is designed to prepare a student for a professional career in governmental service, industry, and research institutions in such positions as conservationist, range manager, geneticist, plant breeder, plant physiologist, mycologist, plant pathologist, plant quarantine inspector, taxonomist, museum curator, or teacher in secondary schools or institutions of higher learning.

Administration of the range management program is under the direction of the Department of Botany.

Students majoring in botany (except those planning to qualify for biology teaching or range management) should take the following courses:

Botany 101, 123, 345, 351, 390, 391, 410, 430, 445, 490, 491, 531, 535, 543, 546.

Recommended supporting courses:

Zoology 105; 164 or 263; 212, 230; Bacteriology 121 or 301; Agronomy 141, 307; Geology 101; Mathematics 101, 111, 112; Chemistry 111, 112, 113, 221; Physics 111, 112, 113.

Students majoring in botany and planning to teach biology in secondary schools should take the following courses:

Botany 101, 123; 145 or 345; 230; 351 or 355; 390 or 391; 410, 430; 490 or 491; 531 or 535; 543; Zoology 105, 164, 230, 372, 385; Bacteriology 121; and 5 hours of electives in Zoology.

Recommended supporting courses:

Agronomy 141; Geology 101; Mathematics 101, 111; Chemistry 105, 106, 107, or 111, 112, 113; Botany 451.

Students minoring in botany and planning to teach in the secondary schools should take the following courses:

Botany 101, 112, 123, and 10 hours selected from 145, 230, 410, 430, 451.

Students planning to qualify for positions in range management should take the following courses:

Botany 101, 112, 123, 145, 390 or 391, 410, 430, 445, 462, 490 or 491; Agronomy 141; Animal Husbandry 207. Two of the following courses: Animal Husbandry 215, 335, 340, Agricultural Economics 410. Two of the following courses: Agronomy 262, 307, Zoology 105, 164, 230, 550, Botany 735.

Recommended supporting courses:

Botany 393; Chemistry 111, 112; Mathematics 111, 112; Geology 101, 102; Geography 401; Agricultural Economics 101, 430.

Lower Division Courses

- 101. General Botany.** (5:3:4) A.W.S. (G-BS) Staff
Prerequisite to further work in the plant sciences. Recommended for the non-science student. Structure, physiology, and reproduction of the higher plants.
- 112. The Plant Kingdom.** (4:3:3) A.W. (G-BS) McKnight
Survey of the plant kingdom, including the morphology of representative species.
- 123. Plant Classification.** (5:3:4) S. Home Study also. (G-BS) Harrison
General principles of taxonomy and use of manuals with emphasis on classification of local flora.
- 145. Principles of Genetics.** (3:3:0) A.W.S. Home Study also. (G-BS) Prerequisites: Botany 101 or Zoology 105. Stutz
Study of the principles of heredity and variations.
- 175. Histological Technique.** (3:1:6) A. Prerequisite: Botany 101. Moore
Techniques of preparing plant tissues for microscopic examination.
- 230. Trees and Shrubs.** (3:3:0) S. (G-BS) Staff
Names and characteristics of common trees and shrubs and their uses as ornamentals and in commerce.

Upper Division Courses

- 310. Advanced Taxonomy.** (3-5:1:4-8) S. Prerequisite: Botany 123, 145. Moore
Critical study of the characteristics, ecology, and classification of a limited plant group or plants of a limited area.
- 345. Genetics.** (4:4:0) W. (G-BS) Prerequisite: Botany 101 or Zoology 105. Stutz
A study of the principles of genetics and their application to other sciences and to human welfare.
- 346. Genetics Laboratory.** (1:0:2) W. Prerequisite: previous or concurrent registration in Botany 345 or equivalent. Stutz
Laboratory and field exercises in genetics.
- 351. Anatomy.** (3:0:6) W. Prerequisite: Botany 101. Christensen
Origin, development, and maturation of the structures of vascular plants.
- 355. General Cytology.** (4:2:4) A. Prerequisite: Botany 101 or Zoology 105. Moore, Stutz
Study of the organization and functions of protoplasm.
- 390, 391. Seminar—Junior Year.** (1:1:0 ea.) A.W. Required of all majors in their junior year. Staff
Presentation and discussion of topics from the current literature of the field.
- 393. Seminar in Plant Ecology and Range Management.** (1:1:0) S. (Does not take the place of Botany 390 or 391.) Christensen, Murdock
- 396. Special Problems in Range Management.** (1-5:1-3:0-4) A.W.S. Staff
- 410. Plant Physiology.** (5:3:4) W. Prerequisites: Botany 101 and Chemistry 105 or 111. Harrison
Water relations, synthesis of foods, digestion, mineral nutrition, and growth in the higher plants.
- 430. Plant Ecology.** (5:3:0) A. (Field trips to be arranged) (G-BS) Prerequisite: Botany 101 or Zoology 105. Christensen
Relation of plants to their environment, their adaptations to factors of soil and climate, and their influence on each other.

- 435. Plant Geography.** (3:3:0) A. (G-BS) Prerequisite: Botany 101 or Zoology 105. Murdock
Plant distribution and origin of plant communities in the light of present and recent geological conditions.
- 445, 446. Field Ecology.** (2:1:0 ea.) S. (Includes one field trip of about one week's duration.) Prerequisite: consent of instructor. Murdock
Field studies of plants and plant communities and the environmental conditions with which they are associated.
- 451. Conservation of Natural Resources.** (3:3:0) W.S. Home Study also. (G-BS) Murdock
Need for, and means of providing, conservation of renewable natural resources.
- 455. Range Forage.** (3:1:4) A. Prerequisite: Botany 123. Christensen
Characteristics, distribution, and value of the more important forage plants of the Western Range.
- 462. Range Management.** (4:3:2) S. Prerequisites: Botany 101, 430. Murdock
Problems associated with the management of range lands, grazing revegetation, and maintenance of range lands.
- 465. Range Revegetation and Improvement.** (4:3:3) S. Prerequisite: Botany 430. Christensen
Artificial and natural revegetation and the use and development of fencing, watering, and other range facilities.
- 466. Methods in Range Management.** (3-5:2:2-8) Su. Prerequisite: Botany 430. Staff
Field methods of estimating vegetation, measuring factors of soil and climate; principles of sampling applied toward the solution of simple field problems.
- 470. Diseases of Cultivated Plants.** (5:3:4) A. Prerequisite: Botany 101; recommended prerequisite: Botany 535. Stutz
Important diseases of cultivated plants, their identification, causes, and methods of control.
- 490, 491. Seminar—Senior Year.** (1:1:0 ea.) A.W. Required of all majors in their senior year. Staff
Presentation and discussion of topics from current literature of the field.
- 495, 496. Special Problems.** (1-5:0:3-15 ea.) A.W.S. Staff

Advanced Undergraduate or Graduate Courses

- 531. Algae.** (3:2:4) S. Prerequisite: Botany 101. McKnight
Study of the structure, relationships, and life histories of the main groups of algae.
- 535. Fungi.** (3:2:4) A. Prerequisite: Botany 101. McKnight
Study of the structure, relationships, and life histories of representative fungi.
- 543. Mosses and Ferns.** (3:2:4) W. Prerequisite: Botany 101. McKnight
Study of the structure, relationships, and life histories of mosses, liverworts, and ferns.
- 546. Seed Plants.** (3:2:4) S. Prerequisite: Botany 101. Moore
Study of the structure, relationships, and life histories of the seed plants.
- 571. Watershed Management.** (3:3:0) A. (Field trips to be arranged.) Murdock
Influence of vegetation on water supplies, floods, soil erosion, and runoff. Methods in managing and rehabilitating damaged watersheds.

- 590, 591. Seminar. (1:1:0 ea.) A.W. Staff
 593. Special Problems in Range Management. (1-5:0:3-15) A.W.S. Staff

Graduate Courses

604. Advanced Taxonomy. (2-5:0:6-15) S. Prerequisites: Botany 123 and 145 or consent of instructor. Moore
 615. Agrostology: Taxonomy and Ecology of Grasses. (3:1:4) A. Prerequisite: Botany 123; recommended prerequisite: Botany 145. Harrison
 625. Cytogenetics. (4:3:2) W. Prerequisite: Botany 355. Stutz
 650. Speciation. (3:3:0) S. Prerequisite: genetics or consent of instructor. Stutz
 665. Lower Fungi. (5:3:4) W. Prerequisite: Botany 112 or 535. McKnight
 Classification, structure, and relationships of the myxomycetes and phycomycetes.
 668. Higher Fungi. (5:3:4) S. Prerequisite: Botany 112 or 535. McKnight
 Classification, structure, and relationships of the myxomycetes and imperfecti and basidiomycetes.
 683. Fleshy Fungi. (3:3:6) Su. McKnight
 The names, characteristics, and distribution of the edible and poisonous mushrooms, pore fungi and puffballs of Utah.
 690, 691, 692. Special Problems. (2-5:0:6-15 ea.) A.W.S. Staff
 699. Thesis for Master's Degree. (Arr.) A.W.S. Staff
 706. Experimental Ecology. (3:2:2) S. Prerequisites: Botany 410, 430. Harrison
 712. Plant Nutrition and Growth. (5:3:4) A. Prerequisites: Botany 410; Chemistry 111, 112; recommended prerequisite: organic chemistry. Harrison
 733. Grassland Ecology. (3:3:0) S. Prerequisite: consent of instructor. Christensen, Murdock
 735. Forest Ecology. (3:3:0) W. Prerequisite: consent of instructor. Christensen, Murdock
 742. Field Ecology. (2:1:0) S. (Extended field trip.) Prerequisite: consent of instructor. Murdock
 754. Conservation of Natural Resources. (2-5:1:3-12) W. Prerequisite: consent of instructor. Christensen, Murdock
 758. Methods in Range Management. (3-5:1:3-12) S. Prerequisites: Botany 430, 445. Staff

Business Administration

(See courses in Business Management.)

Business Education and Office Management



Professor: E. L. Christensen (chairman).
Associate Professors: Croft, D. A. Peterson.
Assistant Professors: Crandall, Polson, Stansfield, E. P. Taylor.
Instructors: Bell, DeMille, Guymon, Herde.

Business Education

The program in business education is planned for those who desire to prepare for the teaching of business subjects in high schools. This can be done concurrently with preparation for a secretarial or allied occupation, providing the student decides upon this dual preparation during his sophomore year or the early part of his junior year. Two options are available: Option One—with shorthand, and Option Two—without shorthand. Both men and women who complete requirements for teaching and office occupations find excellent opportunities in either area.

A series of graduate courses is provided for the student who elects a business education minor in a master's program, or for teachers who desire to fulfill state recertification requirements.

Office Management

There are two separate programs in this division. The program in office management provides a broad cultural and business-core foundation with emphasis in office administration. The program for the executive secretary also provides this broad foundation with concentration directed toward the function of administrative assistants.

A minor in the secretarial division of this department requires completion of 20 hours including 104, 220, and 311.

Business Education Major

	Recommended Years	
	Fr. So.	Jr. Sr.
General Education Requirements		
Religious Education	12	12
Physical Science (Classes in two depts.)	9	
Biological Science	8	
Social Science: Economics 101	5	
History 170 or 180	5	
Elective		5
Humanities and Aesthetics (Classes in two depts.)	5	10
English Composition	9	
Physical Education and Health	5	
Professional Education Requirements		
Bus. Ed. 377 (Basic Classroom Procedures)		3-4
Bus. Ed. 478 (Unit Planning and Teaching)		4
Bus. Ed. 479 (Student Teaching)		7-12

See College of Education for other required professional courses leading to secondary certification: Preparation of Secondary School Teachers.

Business Education Requirements—Option One (With Shorthand)

Off. Mgt. 101*, 102**, 103, or equiv.; 104 req.	2-4	
Off. Mgt. 11*, 112*, 113, 214 or equiv.	8-12	
Off. Mgt. 311 (Office Transcription)	4	
Off. Mgt. 106 (Calculating Machines)	2	
Off. Mgt. 220 (Business Communication)	3	
Accounting 101 and 102	10	
Off. Mgt. 470 (Records Control and Off. Mach.)		3
Off. Mgt. 475 (Directed Office Experience)		5
Total of 36 hours required in Office Mgt.; additional courses to complete this total must be chosen from		
Off. Mgt. 305, 320, 325, 480, 485, 486; Bus. Mgt. 480, 481	3-13	

*Not allowed if student has one year credit in this subject in high school.

**Not allowed if student has two years credit in this subject in high school.

Office Management Requirements—Option Two (Without Shorthand)

Accounting 101 or 201, and 102 or 202, and 316	12	
Bus. Mgt. 480 and 481 (Executive Lectures)	1-2	
Off. Mgt. 102, 103, 104 or equiv.	6	
Off. Mgt. 106 (Calculating Machines)	2	
Off. Mgt. 220 (Business Communication)	3	
Off. Mgt. 305 (Office Org. and Mgt.)		5
Off. Mgt. 320 (Business Writing and Reporting)		3
Off. Mgt. 325 (Org. and Dict. of Bus. Corres.)		2
Off. Mgt. 470 (Records Control and Off. Mach.)		3
Off. Mgt. 480 (Case Studies in Off. Mgt.)		3
Off. Mgt. 485, 486 (Lectures in Off. Adm.)		1-2

Teaching Major: Either Option One (Business Education Requirements) or Option Two (Office Management Requirements) completes requirements for a teaching major.

Teaching Minor: See College of Education section of the catalog (Subject Matter Preparation for Secondary School Teachers) for 24-hour lists of teaching minors.

Office Management Major

	Recommended Years	
	Fr. So.	Jr. Sr.
General Education Requirements		
Religious Education	12	12
Physical Science (classes in two depts.)	9	
Biological Science	8	
Social Science: Economics 101	5	
History 170	5	
Elective		5
Humanities and Aesthetics: English Literature	6	
Upper Division Elective		9
English Composition	9	
Physical Education and Health	5	
Office Management—Option Three: Office Administration		
Accounting 101 or 201, and 102 or 202	10	
Accounting 230 (Business Mathematics)	3	
Accounting 316 (Machine Accounting)	2	
Accounting 555 (Accounting Systems—recommended)		5

Bus. Mgt. 342 (Business Law)	5
Bus. Mgt. 347 (Principles of Marketing)	5
Bus. Mgt. 348 (Financial Administration)	5
Bus. Mgt. 480, 481 (Executive Lectures)	1-2
Economics 101 (Economic Principles)	5
Economics 331 and 332 (Business Statistics)	5
Off. Mgt. 102, 103, 104 (Production Typewriting)	2-6
Off. Mgt. 106 (Calculating Machines)	2
Off. Mgt. 220 (Business Communication)	3
Off. Mgt. 305 (Off. Org. and Mgt.)	5
Off. Mgt. 320 (Business Writing and Reporting)	3
Off. Mgt. 325 (Org. and Dict. of Bus. Com.)	2
Off. Mgt. 470 (Records Control and Office Machines)	3
Off. Mgt. 480 (Case Studies in Office Management)	3
Off. Mgt. 485, 486 (Lectures in Office Administration)	1-2
Office Management—Option Four: Executive Secretary	
Accounting 101 and 102	10
Bus. Mgt. 342 (Business Law)	5
Bus. Mgt. 347 (Principles of Marketing)	5
Bus. Mgt. 348 (Financial Administration)	5
Bus. Mgt. 480, 481 (Executive Lectures)	1-2
Economics 101 (Economic Principles)	5
Economics 331 or 332 (Business Statistics)	2-3
Off. Mgt. 101, 102 or equiv.; 103 and 104 req.	4-8
Off. Mgt. 106 (Calculating Machines)	2
Off. Mgt. 214 or equiv., 311, 312 req. (Shorthand)	4
Off. Mgt. 220 (Business Communication)	3
Off. Mgt. 305 (Office Org. and Mgt.)	5
Off. Mgt. 320 (Business Writing and Reporting)	3
Off. Mgt. 470 (Records Control and Off. Mach.)	3
Off. Mgt. 475 (Directed Office Experience)	5
Off. Mgt. 485, 486 (Lectures on Off. Adm.)	1-2

BUSINESS EDUCATION

Upper Division Courses

- 377. Basic Classroom Procedures.** (3-4:4:3) A.W.S. Staff
For course description and fee see College of Education.
- 468. Fundamentals of Business Education.** (3:3:0) S. Home Study also. Staff
A course designed for an understanding of the fundamentals of business education.
- 478. Unit Planning and Teaching.** (4:3:5) A.W.S. Staff
For course description and fee see College of Education.
- 479. Secondary Student Teaching.** (7-12:1:20) A.W.S. Staff
For course description and fee see College of Education.

OFFICE MANAGEMENT

Lower Division Courses

- 101. Fundamentals of Typewriting.** (2:5:0) A.W.S. Staff
Mastery of the keyboard and development of basic skills. Students with high school credit in typewriting are not permitted to take this course for college credit.
- 102. Intermediate Typewriting.** (2:5:0) A.W.S. Staff
Development of speed and control, and an introduction to the arrangement of typewritten material.

- 103. Speed Building in Typewriting Production Techniques.** (2:5:0) A.W.S. Staff
Prerequisite: a beginning speed of 40 words per minute.
Intensive drills with emphasis on measurement of speed and control in the production of manuscripts, outlines, minutes, tabulations, letter writing, rough drafts, and legal instruments.
- 104. Advanced Production Techniques in Typewriting.** (2:5:0) A.W.S. Pre-requisite: B.E.O.M. 103 and minimum speed of 50 words per minute. Staff
Application of advanced production techniques to practical business problems including statistical reports, office projects, editing, and composition.
- 106. Calculating Machine.** (2:5:0) A.W.S. Staff
Instruction and training in the operation of key-driven calculators, ten-key adding and listing machines, and rotary-driven calculators.
- 111. Beginning Shorthand.** (4:5:0) A.W.S. Home Study also. Staff
Study of the fundamentals of shorthand with emphasis on developing fluency in reading and writing from shorthand plates. Students with previous training in Gregg shorthand are not permitted to take this course for credit.
- 112. Intermediate Shorthand.** (4:5:0) A.W.S. Staff
Review of shorthand fundamentals and an introduction to taking dictation of business correspondence.
- 113. Shorthand Dictation.** (4:5:0) A.W.S. Staff
Development of shorthand writing and control, beginning with 60 words per minute, with the objective of developing a rate of 70 to 90 words per minute on new material.
- 214. Applied Stenography.** (4:5:0) A.W.S. Staff
Introduction to transcription through application of shorthand to business vocabularies. For students who write 80 words per minute on new material.
- 215. Applied Stenography.** (4:5:0) A.W.S. Staff
Optional course designed for students who need to build their speed to 100 words per minute or above before taking Off. Mgt. 311. Not required for a major in this department.
- 220. Business Communication.** (3:3:0) A.W.S. Home Study also. Prerequisite: English 111, 112, and 113; also English 211 if student is deficient in knowledge of practical business grammar. Staff
Study in current means of communication; experience in the composition of business letters.
- 275. Basic Office Procedures.** (3:3:3) S. Staff
For those who do not plan to take Off. Mgt. 470 and 475. Provides experience with inter-office communications, duplicating machines, filing and machine transcription. Not required for majors in this department.

Upper Division Courses

- 305. Office Organization and Management.** (5:5:0) A.W. Staff
Introduction to problems of office management and tools and methods of problem solution. Areas of concentration include office standards and quality control, job analysis and work simplification, time studies and automation in office operations.
- 311. Transcription.** (4:5:0) A.W.S. Staff
Places emphasis on rapidly transcribing mailable letters. Upon entering this course, students should be able to take dictation at 100 words per minute and typewrite at 50 words per minute.

- 312. Advanced Transcription and Speedbuilding.** (4:5:0) A.S. Staff
Places emphasis on accurate and rapid shorthand production. For students who write 100 words per minute and who desire to increase their speed to 120 words per minute.
- 313. Advanced Expert Shorthand.** (4:5:0) W. Staff
Expert shorthand speed course for students writing above 120 words per minute in making reports of committee meetings, boards of directors' meetings or conferences. Includes specialized vocabulary, testimony dictation, and Congressional Record material.
- 320. Business Writing and Reporting.** (3:3:0) A.S. Home Study also. Prerequisite: Off. Mgt. 220. Staff
Intensive experience in communicating business analysis and results of fact-finding procedures.
- 325. Organization and Dictation of Business Correspondence.** (2:2:0) W. Staff
Actual experience in giving dictation of office correspondence and reports. Includes elements of thought processes and organization in preparing to give dictation. Machine dictation equipment will be available.
- 418. Advanced Secretarial Training Review.** (4:5:0) S. Staff
Intensive concentrated skills course for last-quarter seniors and others desiring to pass Civil Service, F.B.I., merit, and other examinations immediately preceding employment.
- 470. Records Control and Office Machines.** (3:3:3) A.W.S. Prerequisite: Off. Mgt. 104 or equivalent. Staff
A course dealing with fundamentals of filing, machine transcription, duplicating machines, other office equipment and supplies.
- 475. Directed Office Experience.** (5:5:5) A.W.S. Prerequisites: Off. Mgt. 311 and 470 or equivalent; shorthand speed of 100; typing speed of 60. Staff
- 480. Case Studies in Office Management.** (3:3:0) S. Staff
Extensive use of cases in office management. Student analysis, group discussions, and written reports will form principal basis for conduct of course.
- 485, 486. Lectures in Office Administration.** (1:1:0 ea.) W. 485 given in even-numbered years; 486 given in odd-numbered years. Staff

Graduate Courses

- 630. Current Developments Influencing the Content of Business Education.** (3:3:0) A. Staff
A presentation of recent technological developments such as automation in business and an analysis of the influence on the content and procedures of business education.
- 635. Recent Changes in the Materials and Methods of Business Education.** (3:3:0) W. Staff
Investigation of recent developments in materials and methods in the teaching of business subjects in the secondary school and junior college. Open to those who have had teaching experience.
- 640. Trends of Thought in Business Education.** (3:3:0) S. Staff
Fundamental ideas that have shaped the business curriculum in the United States and basic issues that have affected purposes, trends, and control of business education in public and private institutions.
- 660. Business Education Problems in the Secondary School.** (3:3:0) Su. Staff
A study of problems and issues in current business education programs of the high school and junior college.

665. Practicum in Business Education. (3:3:0) W.

Staff

The planning and development of practical and creative projects in the field of business education, individually or in groups. Experienced teachers will be permitted to use actual school problems and projects as a nucleus for the term's work.

670. Cooperative Business Experience Workshop. (6:6:6) S.

Staff

Through the cooperation of business and industry in Utah, Salt Lake, Davis, and Weber Counties, this work-education program is offered to graduate business teachers. This blending of business-community experience and campus classwork will strengthen in the teacher an awareness of the benefits of free enterprise and reveal business problems and practices related to teaching business subjects.

675. Business Education Workshop. (3:3:0) Su.

Staff

A series of clinics in selected business subjects.

These courses also count in Business Education and Office Management:

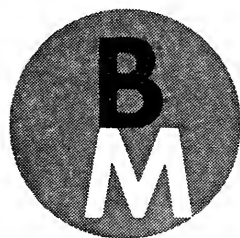
Accounting 316. Machine Accounting. (2:2:0)

Accounting 555. Accounting Systems, Procedures and Methods. (5:5:0)

Bus. Mgt. 480, 481. Executive Lectures. (1:1:0)

Business

Management*



Professors: C. S. Boyle (emeritus), H. R. Clark, Lowe, R. L. Smith, W. J. Taylor.

Associate Professor: C. L. Oaks (chairman).

Assistant Professors: J. R. Davis, M. L. Wilson, Jr.

Instructors: Covey, Faux.

The primary objective of this department is to prepare students for professional careers in business management. The courses of study and methods of instruction are designed to develop in each student personal qualities which will enable him to realize his full potentialities as an effective administrator. Stress is placed upon the development of such qualities as the art of decision making, facility in the use of analytical tools and techniques, and the ability to communicate effectively.

Students planning to major in this department should complete in the time sequence indicated the following general education, college and departmental core requirements. After completing these general education and core requirements, a student can elect any one of four different concentrations—Business Administration, Finance and Banking, Industrial Management, or Marketing—as outlined below.

GENERAL EDUCATION

(Freshman Through Senior Years)

See "Requirements for Graduation" section of this catalog for courses needed to satisfy the General Education requirements of the university. A detailed discussion of courses which can be taken in each required area is listed therein.

COLLEGE AND DEPARTMENTAL CORE

Freshman and Sophomore Years		Hours
Economics 111, Economic Principles and Problems (or equivalent)	.....	5
Accounting 230, 231, Mathematics of Business	.....	6
Accounting 201, 202 (or 101, 102), Elementary Accounting	.....	10
Bus. Mgt. 203, Managerial Accounting and Control	.....	5
Junior Year		Hours
Economics 331, Elementary General Statistics	.....	3
Economics 332, Business Statistics	.....	2
Economics 345, Intermediate Economic Theory	.....	5
Bus. Mgt. 340, Industrial Organization and Management	.....	5
Bus. Mgt. 342, An Introduction to Commercial Law	.....	5
Bus. Mgt. 347, Principles of Marketing	.....	5
Bus. Mgt. 348, Financial Administration	.....	5

*The three departments of Finance and Banking, Industrial Management, and Marketing have been combined to form a single department of Business Management.

Senior Year

	Hours
Bus. Mgt. 420, Human Relations in Administration I	5
Bus. Mgt. 480 or 481, Executive Lectures	1

BUSINESS ADMINISTRATION CONCENTRATION

The business administration course is designed to integrate the various areas included in the department curriculum, and consequently to give exceptional students a broad background in management training at the undergraduate level. Particular emphasis will be placed upon the use of the case method.

Students who desire to adopt this concentration should request approval from the chairman of the department. Requirements for concentration in this area include Business Management 588 and 589 and at least 18 hours from at least two of the following three areas. Business Management 521 (Human Relations II) can also be included as part of the 18 hours, but will not be counted as one of the two required areas.

Finance and Banking Area:		Hours
Bus. Mgt. 451, Investments		5
Bus. Mgt. 552, Advanced Corporation Finance		5
Bus. Mgt. 571, Management of Financial Institutions		5
Bus. Mgt. 574, Investment Management		5
Bus. Mgt. 577, Modern Corporate Problems		3
Industrial Management Area:		Hours
Bus. Mgt. 569, Personnel Management		5
Bus. Mgt. 560 and 561, Problems in Production		10
Bus. Mgt. 560 and 572, Problems in Production and Industrial Quality Control		8
Bus. Mgt. 560 and 573, Problems in Production and Management of Production Facilities		8
Marketing Area:		Hours
Bus. Mgt. 579, Problems in Marketing		5
Bus. Mgt. 555, Problems in Advertising		5
Bus. Mgt. 556, Problems in Retail Store Mgt.		5
Bus. Mgt. 557, Problems in Sales Mgt.		5

FINANCE AND BANKING CONCENTRATION

The course work offered in this area is designed, first, to familiarize business students with the elements of sound finance and, second, to provide specialized work for those who seek positions of management and executive responsibility in financial institutions or the financial departments of business firms. The requirements are flexible enough to allow some specialization directed toward commercial banking, investment banking, business finance, insurance, real estate, or investment management.

Students electing to concentrate in this area of the Department of Business Management are required to take a minimum of twenty-five hours from the following courses.

	Hours
Bus. Mgt. 450, General Insurance	5
Bus. Mgt. 451, Investments	5
Economics 453, Money and Banking	5
Bus. Mgt. 454, Real Estate	5
Bus. Mgt. 552, Advance Corp. Fin.	5
Bus. Mgt. 565, Life Insurance	3
Bus. Mgt. 566, Property and Casualty Insurance	3
Bus. Mgt. 567, Real Estate Adm.	3
Bus. Mgt. 571, Management of Financial Institutions	5
Bus. Mgt. 574, Investment Management	5
Bus. Mgt. 577, Modern Corporate Problems	3

INDUSTRIAL MANAGEMENT CONCENTRATION

The industrial management concentration provides training for positions in industrial engineering, production control, quality control, purchasing, industrial relations, and the operating departments of industrial enterprises. In addition, it facilitates entry into executive trainee programs, the active management of small business, or the continuation of training in a graduate school of business.

Students electing a concentration in industrial management will take the basic course outlined below and an emphasis in either production or industrial relations.

Basic Course:	Hours
Drawing 102, Blueprint Reading (to be taken during Jr. year)	3
Bus. Mgt. 560, Manufacturing Processes	5
Bus. Mgt. 561, Manpower Management	5
Bus. Mgt. 562, Production Control	5
Bus. Mgt. 588, 589, Problems in Business Management	4, 4

Production Emphasis:	Hours
Bus. Mgt. 572, Industrial Quality Control	3
Bus. Mgt. 573, Management of Production Facilities	3

Industrial Relations Emphasis:	Hours
Bus. Mgt. 569, Personnel Management	5
Economics 461, Labor Problems (highly recommended)	3

MARKETING CONCENTRATION

The marketing course is designed to prepare students for positions of management and executive responsibility in the fields of industrial marketing, retailing, wholesaling, advertising, sales management, and market research. Requirements for a concentration in this area include three of the four courses in Group A, Business Management 579 (Problems in Marketing), and at least one course in Group B.

Group A.	Hours
Bus. Mgt. 455, Advertising	5
Bus. Mgt. 456, Retailing	5
Bus. Mgt. 457, Wholesaling and Industrial Marketing	5
Bus. Mgt. 458, Market Research	5

Group B	Hours
Bus. Mgt. 555, Problems in Advertising	5
Bus. Mgt. 556, Problems in Retail Store Management	5
Bus. Mgt. 557, Problems in Sales Management	5

MINOR

Students electing to do so may count their required course work in Accounting and Economics as a composite minor.

Lower Division Courses

203. Managerial Accounting and Control. (5:5:0) A.W.S. Prerequisites: Accounting 102 or 202, and 231 or by consent of the instructor (Acct. 231 may be taken concurrently.) Faux, Smith, Wilson

Third in a three-quarter series for Business Management majors. During the sophomore year, business management students should take the following accounting series: Accounting 101 or 201, Accounting 102 or 202, and Business Management 203.

The first course emphasizes basic accounting concepts. The second course stresses the analysis and interpretation of financial statements and the development and use of cost information. The third course stresses the understanding and use of accounting data for decision-making purposes with emphasis on the measurement of performance and relevant cost concepts.

205. Personal Finance. (3:3:0) A.W.

Staff

A practical course in money management with particular reference to utilization of savings.

Upper Division Courses**315. Principles of Salesmanship.** (2:2:0) A.S. Home Study also.

Staff

A critical review of techniques, with emphasis upon the opportunities available in professional salesmanship.

340. Industrial Organization and Management. (5:5:0) A.W.S. Prerequisites: Accounting 231, Economics 331, and either Business Management 203 or Accounting 350; engineering students—Mathematics 111.

Bushnell, Faux, Wilson

Introduction to the producing function of business. Plant location and layout, machinery and equipment utilization, employee-employer relations, and industrial control.

342. An Introduction to Commercial Law. (5:5:0) A.W.S. Home Study also.

Nelson, Taylor

Survey of modern American business law as it applies to everyday life and experiences of the citizen.

347. Principles of Marketing. (5:5:0) A.W.S.

Staff

Analytical survey of institutions, functions, problems, and policies in the distribution of goods from producer to consumer. Includes treatment of pricing and governmental regulation.

348. Financial Administration. (5:5:0) A.W.S. Prerequisite: Business Management 203, or Accounting 350.

Clark, Lowe

Introduction to principles governing financial administration of business enterprises.

367. Industrial Purchasing. (3:3:0) S.

Staff

Analysis of techniques involved in procurement of materials, equipment and supplies. Attention also given to purchasing associations, legal aspects of purchasing, and traffic as related to purchasing.

420. Human Relations in Administration I. (5:5:0) A.W.S. Recommended for seniors only.

Covey, Faux

Case problems involving communication processes, face to face relationships, and the securing of cooperation are discussed to develop a way of understanding self and others.

450. General Insurance. (5:5:0) A.

Staff

Life, health, accident, fire, property, and liability insurance and principles of risk-bearing as they apply to each classification of the insurance field.

451. Investments. (5:5:0) A. Prerequisite: Business Management 348 or equivalent.

Analysis of operating and financial characteristics of industrial, public utility, railroad, financial, and real estate enterprises, and various federal, state and municipal bodies.

454. Real Estate and Urban Land Economics. (5:5:0) W. Prerequisite: Business Management 348 or equivalent.

Lowe

Study of forces of demand and factors of supply of urban land, problems of the building industry, real estate credit, rents and prices, and city growth and structure.

455. Advertising. (5:5:0) A.S. Prerequisite: Business Management 347.

Staff

Analysis of preparation, program, planning, media, budgeting and research. Utilization by business emphasized, but attention also given to advertising institutions and to economic and social aspects.

- 456. Retailing.** (5:5:0) A. Prerequisite: Business Management 347. Staff
Survey of retail store operation from point of view of executive control, profit planning, merchandising, store location, layout, organization, policies, system, and coordination of store activities.
- 457. Wholesaling and Industrial Marketing.** (5:5:0) W. Prerequisite: Business Management 347. Staff
A study of principles, practices, and policies of business concerns engaged in movement of goods from manufacturer to retailer and from manufacturer to industrial user.
- 458. Marketing Research.** (5:5:0) A.W. Prerequisite: Business Management 347. Staff
Uses, methods, and techniques of marketing research.
- 480, 481. Executive Lectures.** (1:2:0 ea.) S. Staff
Top executives from throughout the nation visit the campus and meet students in a series of lectures dealing with subjects significant to executive leadership.

Advanced Undergraduate or Graduate Courses

- 521. Human Relations in Administration II.** (4:4:0) W.S. Prerequisite: Business Management 420 or consent of instructor. Covey
An illuminating conceptual framework for understanding group processes is developed to identify factors contributing to understanding, growth, and cooperation in group work and leadership.
- 552. Advanced Corporation Finance.** (5:5:0) S. Prerequisite: Business Management 348 or consent of instructor. Clark
Financial problems connected with organization of corporations, underwriting, and sale of securities; management, expansion, and organization of those that are not successful.
- 555. Problems in Advertising.** (5:5:0) W. Prerequisite: Business Management 455 or consent of instructor. Staff
Problems in the use of advertising as a part of management's overall marketing strategy. Stresses planning, coordination, control, and evaluation of effectiveness.
- 556. Problems in Retail Store Management.** (5:5:0) S. Prerequisite: Business Management 456 or consent of instructor. Staff
Problems involved in policy formulation and implementation and in the coordination of store activities through the use of controls and standards.
- 557. Problems in Sales Management.** (5:5:0) A.S. Prerequisite: Business Management 203 and 347 or consent of instructor. Staff
Problems in sales organization, management of sales force (selection training, compensation, and supervision), sales methods, and sales planning and control.
- 558, 559. Advanced Problems in Marketing Research.** (Arr.) A.W.S. Prerequisite: Business Management 458 and consent of instructor. Staff
Advanced methods of research and their application to marketing problems.
- 560. Problems in Production—Manufacturing Processes.** (5:6:0) A. Prerequisites: Drawing 102, Business Management 340, and senior or graduate standing in the department. Others by approval of instructor. Wilson
Part one of a one-year course dealing with problems encountered by production personnel; casting, forming and machining of metals and plastics. Utilizes business cases, films, and field trips.

- 561. Problems in Production—Manpower Management.** (5:6:0) W. Prerequisite: Business Management 560. Wilson
Part two of a one-year series. Methods analysis, time studies, wage determination and administration.
- 562. Problems in Production—Production Control.** (5:6:0) S. Prerequisite: Business Management 561. Wilson
Part three of a one-year series. Product design, materials handling and control, process analysis, plant layout, and production control.
- 565. Life Insurance.** (3:3:0) W. Prerequisite: Business Management 450 or consent of instructor. Staff
Advanced study of the nature and functions of life insurance and its application to personal and business needs.
- 566. Property and Casualty Insurance.** (3:3:0) S. Prerequisite: Business Management 450 or consent of instructor. Staff
Advanced study of the functions of fire and marine insurance, casualty insurance, and corporate building.
- 567. Real Estate Administration.** (3:3:0) S. Prerequisite: Business Management 454. Lowe
Mechanisms of real estate finance, principles of mortgage risk analysis, role of government agencies, and problems of property development.
- 569. Personnel Management.** (5:5:0) W. Prerequisites: Economics 345, Business Management 340 and 420, or permission of the instructor. Faux
Management of the personnel function: job evaluation, organization planning, employee selection, training, compensation, morale, labor relations, and management development. Method: case analysis and research projects.
- 571. Management of Financial Institutions.** (5:5:0) A. Lowe
Study of asset management of various types of financial institutions with special emphasis on loan policies and related problems.
- 572. Industrial Quality Control.** (3:4:0) A. Prerequisites: Accounting 230, Economics 331, Business Management 340, or Mathematics 111. Wilson
Emphasizes the organization and administration of a quality control program, including the application of mathematical and statistical techniques to problems in industrial quality control. Meets for two consecutive hours, two days per week.
- 573. Management of Production Facilities.** (3:4:0) W. Prerequisites: Business Management 203 and 560. Wilson
The economics of equipment utilization and replacement, capital budgeting, maintenance control, and tools control. Meets for two consecutive hours, two days per week.
- 574. Investment Management.** (5:5:0) W. Staff
Theory of investment management and its application in formulation of investment policies for different types of investors.
- 575. Advanced Production Methods.** (3:4:0) S. Prerequisite: Business Management 561. Wilson
Advanced methods work, automation, and the application of data processing to industrial operations. Meets for two consecutive hours, two days per week.
- 576. Industrial Planning and Forecasting.** (3:3:0) A. Prerequisite: departmental approval. Staff
Top management policy determination in the areas of production planning, planning of physical facilities, and organization planning as they are related to market and economic forecasts.

- 577. Modern Corporate Problems.** (3:3:0) S. Lowe
Problems arising from separation of ownership and control, changing theory of profits and property, changing methods of financing expansion and other current problems.
- 579. Problems in Marketing.** (5:5:0) A.W. Prerequisite: Business Management 347. Staff
Analysis of problems in marketing management with particular emphasis upon integrating the various functional areas.
- 585. Industry Analysis.** (5:5:0) S. Prerequisites: Business Management 560 and 588. Staff
Production characteristics of major industries. Large business units are studied in terms of sources of raw materials, production techniques, financial structure, degree of integration, stage of maturity, character of mechanization, government regulation, and possible future developments.
- 588, 589. Problems in Business Management.** (4:4:0 ea.) W.S. Limited to seniors and graduate students in the College of Business. Staff
An integrating case course extending over two quarters in which marketing, production, finance, control, economic, and human issues are considered simultaneously in developing realistic analyses, decisions, and plans of action. Extensive use of business cases requiring student analysis, group discussions, and written reports form the basis for the conduct of the course.
- 591. Research and Diagnosis of Business Problems.** (2:2:0) S. Prerequisite: Business Management 588 or consent of instructor. Faux
Provides experience in the research and diagnosis phase of the case method. Includes preparation of cases from actual business situations.

Graduate Course

- 699. Thesis for Master's Degree.** (Arr.) A.W.S. Staff

These courses also count in Business Management:

Accounting 556. Electronic Computer Programming. (5:5:0)

Journalism 561. Public Relations. (3:3:0)

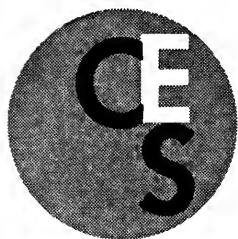
Business Program

(Pre-graduate)

(See College of Business)

Associate Professors: B. Brown (chairman, 222 ESC),
B. J. Pope.
Assistant Professor: J. J. Christensen.

Chemical Engineering Science



Students majoring in chemical engineering science may anticipate receiving a thorough education in the fundamental physical sciences as well as in engineering. This training will enable students upon graduation to enter any of the numerous academic or industrial fields which are open to persons having this broad educational background.

Entrance, Scholarship, and Graduation Requirements

For special entrance requirements into the College of Physical and Engineering Sciences, see that section of this catalog. Attention is called especially to the college entrance requirements in mathematics and to the possibility of substituting air science credit for general education credit in the five-year engineering program.

A student must have earned an average grade of "C" in sophomore physics and calculus before registering for junior engineering classes.

Besides satisfying the general education requirements listed under "Requirements for Graduation," a degree in chemical engineering science requires the completion of a minimum of 245 credits, of which at least 170 shall be chosen from the physical science group. Of these, at least forty-five should be in chemistry, forty in chemical engineering, and twenty-five in civil and electrical engineering or upper division physics. No more than six credits of "D" grade in the major field may be applied toward graduation.

Suggested Curriculum and Options

The following curriculum is merely suggested, to be used as a guide in fulfilling the graduation requirements set forth above. Deviations may be made with the approval of the adviser. For example, students desiring to attend graduate school would do well to substitute additional science courses for some of the engineering courses indicated.

Students of superior ability as indicated by entrance examination results and high school preparation may complete the prescribed program in four years.

There is considerable merit in obtaining a B.S. degree in chemistry at the end of the fourth year. This the student can accomplish by suitably rearranging the suggested schedule to fulfill the general education requirements earlier, by completing the additional requirements in Chemistry as listed in the section covering that department (beginning with Quantitative Analysis in the second year), and by declaring himself a chemistry major during his fourth year.

First Year

	A	W	S
Religion	2	2	2
Chem. 111, 112, 113	5	5	5
*Math. 111, 112, 231	5	5	5
English 111, 112, 113	3	3	3
Phys. Ed.	1	1	1
Health 130			2
M.E. 100		1	
Total Hours	16	17	18

Second Year

	A	W	S
Religion	2	2	2
Math. 232, 233, 234	5	5	5
Physics 211, 212, 213	5	5	5
Chem. 321		5	
Group requirements	5		5
Ch. E. 271, 272, 273	1	1	1
Total Hours	18	18	18

Third Year

	A	W	S
Religion	2	2	2
Chem. 351, 352	5	4	
Ch.E. 371, 372, 373	2	2	2

C. E. 201, 202, 203	3	3	3
Ch.E. 378, 379		2	2
Biological Science	5		3
Humanities and Aesthetics ..		4	5
Total Hours	17	17	17

Fourth Year

	A	W	S
Religion	2	2	2
Chem. 461, 462, 463	4	4	4
Ch.E. 471, 472, 473	4	4	4
C. E. 301, 303	4		5
Group Requirements		7	2
Total Hours	16	17	17

Fifth Year

	A	W	S
Ch.E. 571, 572, 573	3	3	3
Ch.E. 575, 576, 577	2	2	2
Ch.E. 578, 579	3		3
Ch.E. 599	2	2	1
E. E. 301, 302, 303 (or Physics 341, 342, 343)	4	4	4
Chem. 661	3		
Group Requirements		4	
Total Hours	17	15	13

*The beginning course in mathematics is governed by placement in the entrance examination.

Lower Division Courses

- 271, 272, 273. Chemical Process Principles.** (1:1:0 ea.) A.W.S. Brown
The unit processes of the inorganic and organic chemical industries. Economic and technological aspects.

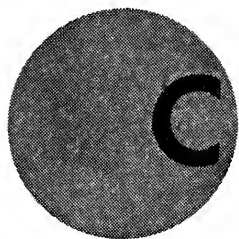
Upper Division Courses

- 371, 372, 373. Chemical Engineering Fundamentals.** (2:2:0 ea.) A.W.S. Prerequisites: Physics 212, Ch.E. 273. Concurrent: Chemistry 221 or 351. Pope
- 378, 379. Engineering Materials.** (2:2:0 ea.) A.W. and W.S. Prerequisite: Chemistry 107 or 112. Christensen
Study of the principles which underlie the behavior and govern the properties of materials as related to their engineering application.
- 471. Chemical Engineering Fluid Dynamics.** (4:3:0) A. Prerequisite Ch.E. 373 or permission. Christensen
Theory of momentum transport and fluid mechanics with emphasis on application in chemical processing equipment.
- 472. Chemical Engineering Thermodynamics.** (4:3:0) W. Prerequisite: Ch.E. 471. Review of First and Second Laws of Thermodynamics, properties of fluids, potential functions, phase and chemical equilibrium, and application to Chemical Engineering.
- 473. Chemical Engineering Heat and Mass Transfer.** (4:3:0) S. Prerequisite: Ch.E. 472. Christensen
Theory of energy transport and mass transport. Includes natural and forced convection, radiation, molecular and eddy diffusion and analogies among transfer mechanisms.

Advanced Undergraduate or Graduate Courses

- 571, 572, 573. Chemical Engineering Unit Operations.** (3:3:0 ea.) A.W.S. Pre-requisite: Ch.E. 473. Pope
- 574. Principles of Chemical Plant Design.** (2:1:0) W. Brown
- 575, 576, 577. Unit Operations Laboratory.** (2:0:4 ea.) A.W.S. Brown
- 578. Nuclear Engineering.** (3:3:0) A. Prerequisite: Ch.E. 471. Brown
The application of the principles of atomic physics to the design and operation of nuclear reactors; shielding; fuel preparation and separation.
- 579. Chemical Engineering Kinetics.** (3:3:0) S. Prerequisites: Ch.E. 473 and Chem. 463. Christensen
Kinetics and equilibrium of chemical reactions with special emphasis on the application of the principles to engineering design of reactors.
- 597. Special Problems.** (Arr.) Registration by permission. Staff
- 599. Chemical Engineering Undergraduate Thesis.** (Arr.) Registration by permission. Staff

Chemistry



Professors: K. P. Anderson (chairman, 225 ESC), Broadbent, L. C. Bryner, Goates, H. T. Hall, J. K. Nicholes, A. D. Swensen.

Associate Professors: Blackham, C. J. Gubler, K. L. Nelson, H. W. Peterson, Vernon.

Assistant Professors: Butler, W. N. Hansen, Izatt, Snow, Wing.

Supt. of Laboratories and Stores: Meibos.

The objectives of the Department of Chemistry are as follows: (1) to provide sound, thorough training in chemistry for students choosing to major in this area, (2) to contribute significantly to the sum of basic research in chemistry, and (3) to be of service to other departments of the university by offering courses in general education for all students and additional fundamental background training for majors in physical and engineering sciences, biological and agricultural sciences, nursing, family living, pre-medicine, pre-dentistry, and other areas.

The department offers four beginning programs in chemistry. The first three are terminal programs: Chemistry 100 for students interested in chemistry for a liberal arts education only; Chemistry 101, 102, 103, and 104 for students in nursing, home economics, and general biology or agriculture; Chemistry 105, 106, and 107 for engineering students (except chemical engineering students); and Chemistry 111, 112 and 113 for chemistry and chemical engineering majors and all others desiring a strong foundation for subsequent extensive study of chemistry such as may be required in physics, biological sciences, medicine, dentistry, and the teaching of science.

A major in chemistry shall consist of a minimum of 63 hours credit. Credit in each of the following courses is required: Chemistry 111, 112, 113, 321, 322, 351, 352, 353, 354 (2 hours), 355 (2 hours), 356 (2 hours), 461, 462, 463, 591, and 592. The remainder of the credit required may be obtained by taking any other upper division chemistry courses. It is recommended, however, that the additional courses be taken from the following list: Chemistry 400, 414, 504, 551, 580, 581, 582, 583 and 593. The student who desires to be certified by the American Chemical Society upon graduation should consult his adviser for details. No more than ten hours of "D" credit in chemistry will be counted in meeting the requirements for any of the majors in chemistry. Credit in Chemistry 100, 101, 102, 103, 104, 105, 106, 107, 220, 221, and 284, all designed as service courses for students in other areas, will not be counted as applying toward a major in chemistry with the exception that A or B credit in Chemistry 105, 106, and 107 will be accepted as the equivalent of credit in Chemistry 111 and 112.

A major in pre-medical or pre-dental chemistry shall consist of a minimum of 44 hours credit in the following courses: Chemistry 111, 112, 113, 321, 351, 352, 353, 354, 355, 356, 461, 462, 463. These majors are open only to bona fide pre-medical and pre-dental students.

A chemistry teaching major shall consist of from 49 to 55 hours credit in courses selected from the following list: Chemistry 111, 112, 113, 321, 322, 351, 352, 353, 354, 355, 356, 414; 461 and 462, or 581 and 582, or 461 and 504. A chemistry teaching major is open only to those who meet the requirements for accreditation by the State of Utah.

Students minoring in chemistry are required to complete Chemistry 221 or 321 and at least 4 additional hours of upper division credit in chemistry.

For special entrance requirements into the College of Physical and Engineering Sciences, see that section of this catalog. Attention is called especially to the college entrance requirements in mathematics and to the possibility of substituting air science credit for general education credit.

For details concerning the program for graduate study leading to the M.S. and Ph.D. degrees in chemistry students should consult the Graduate Catalog.

Freshman Year

	A	W	S
Chem. 111, 112, 113	5	5	5
Math. 111, 112, 231	5	5	5
English 111, 112, 113	3	3	3
Phys. Ed.	1	1	1
Health 130			2
Religion	2	2	2
Elective	2	2	
Total Hours	18	18	18

Sophomore Year

	A	W	S
Chem. 321, 322		5	5
Math. 232, 233, 234	5	5	5
Physics 211, 212, 213	5	5	5
Biological Science	5		
Religion	2	2	2
Elective	2	2	2
Total Hours	19	19	19

Junior Year

	A	W	S
Chem. 351, 352, 353	3	3	3
Chem. 354, 355, 356	2	2	2
Chem. 414	5		
Math. 316, 317	3	3	
Biological Science		3	
Humanities and Aesthetics ..			3
German 101, 102, 103	5	5	5
Religion		2	3
Elective			2
Total Hours	18	18	18

Senior Year

	A	W	S
Chem. 461, 462, 463	4	4	4
Chem. 591, 592, 593	2	2	2
History 170 or 180		5	
Social Science	5		5
German 307, 308, 309	3	3	3
Religion	3	2	2
Elective	1	2	2
Total Hours	18	18	18

(The foregoing outline presumes that advantage will be taken of the opportunity to apply six hours of "double credit" in simultaneously meeting the requirement of both religion and humanities and aesthetics.)

Lower Division Courses

100. **Elementary College Chemistry.** (3:3:0) A.W.S. Home Study also. (G-PS)

Staff

For students seeking only a liberal arts education in chemistry. Those who have had high school chemistry should register in Chemistry 111.

101. **Introductory General Chemistry.** (5:5:4) A. (G-PS)

Staff

For students in nursing, family living, general biology, and agriculture.

102. **Introductory Organic Chemistry.** (4-5:4:2-4) W. (G-PS) Prerequisite: Chemistry 101.

Staff

103. **Introductory Biochemistry.** (3:3:2) S. Prerequisite: Chemistry 102.

Staff

104. **Introductory Inorganic Chemistry.** (5:5:4) W. Prerequisite: Chemistry 101.

Staff

Designed for those students who require more inorganic chemistry than provided by Chemistry 101.

- 105, 106, 107. **General College Chemistry.** (4:4:2 ea.) A.W.S. (†G-PS) Prerequisite: Mathematics 101 or concurrent registration.

Staff

A terminal course in chemistry designed for engineering and other technical areas. More stress is placed on practical applications than in Chemistry 111, 112, 113.

- 111. Principles of Chemistry.** (5:7:0) A.W. Home Study also. (†G-PS) Prerequisites: Mathematics 111 or its equivalent or concurrent registration, and high school chemistry or physics or Chemistry 100. Staff
A non-terminal course in fundamental principles for those who plan to continue their study of chemistry beyond the freshman year.
- 112. Principles of Chemistry.** (5:3:6) W.S. (†G-PS) Prerequisite: Chemistry 111. Staff
- 113. Principles of Chemistry and Qualitative Inorganic Analysis.** (5:3:6) A.S. Prerequisite: Chemistry 112. Staff
- 220. Elements of Quantitative Analysis.** (5:3:6) S. Prerequisite: Chemistry 103 or 107 or 113. Butler, Wing
Quantitative analysis adapted to the needs of students in medical technology and of others interested in biological and food materials.
(Note: This course will not satisfy pre-medical or pre-dental requirements.)
- 221. Quantitative Analysis.** (5:3:6) A. Prerequisites: Chemistry 113 and Mathematics 111. Butler, Wing
For agricultural and biological science majors.
- 228. Fire Assaying.** (3:2:4) S. Prerequisite: Chemistry 113. Wing
- 284. Introductory Physiological Chemistry.** (5:3:4) S. Prerequisite: Chemistry 102 or 107. Vernon

Upper Division Courses

- 300. Fundamentals of Chemistry for General Science Teachers.** (3:3:0) Su. Staff
Restricted to experienced teachers of general science or similar subjects.
- 321, 322. Analytical Chemistry.** (5:3:6 ea.) W.S. Prerequisites: Chemistry 113 and Mathematics 231. Butler, Wing
For physical science and engineering majors.
- 324. Fuels and Fuel Analysis.** (2:1:3) S. Wing
A study of the important fuels used in industry. Experimental methods of analysis of fuels.
- 351, 352, 353. Organic Chemistry.** (3:3:0 ea.) A.W.S. Prerequisites: Chemistry 113 and concurrent registration in Chemistry 354, 355, 356, respectively. Blackham, Broadbent, Nelson
For science and engineering majors. (By special permission of the instructor prior to registration, Chemistry 353 may be taken without concurrent registration in Chemistry 356.)
- 354, 355, 356. Organic Chemistry Laboratory.** (1-2:0:3-6 ea.) A.W.S. Prerequisite: Concurrent registration in Chemistry 351, 352, and 353, respectively. Blackham, Broadbent, Nelson
- 400. Methods of Glass Manipulation.** (1:0:4) A.W.S. Registration by permission of instructor. Bryner
Exercises in glass working.
- 414. Inorganic Chemistry.** (5:5:0) S. Home Study also. Prerequisite: Chemistry 321. Izatt
- 461, 462, 463. Physical Chemistry.** (4:3:3 ea.) A.W.S. Prerequisites: Chemistry 321, Physics 213, Mathematics 233. Anderson, Bryner
For science and engineering majors.

Advanced Undergraduate or Graduate Courses

- 503. Research Laboratory Techniques.** (1:3:0) A. Staff

504. **Instrumental Analysis.** (3:2:3) S. Butler, Goates
Theory and techniques in spectrophotometry, electrometric titration methods, radiochemistry, mass spectrography, etc.
508. ***History of Chemistry.** (3:3:0) S. Offered 1960-61. Nicholes
524. ***Quantitative Microanalysis.** (3:1:6) W. Offered 1959-60. Wing
551. **Qualitative Organic Analysis.** (3-4:2:3-6) A. Blackham, Broadbent, Nelson
Systematic identification of organic compounds, singly and in mixtures.
580. **Metabolic Processes.** (2:2:0) S. Prerequisites: Chemistry 353 and Chemistry 462. Gubler, Swensen, Vernon
For non-biochemistry majors only. Provides an insight into the important area of biochemistry for those who will not otherwise contact it.
- 581, 582, 583. **Biochemistry.** (5:3:6 ea.) A.W.S. Prerequisites: Chemistry 221, 353. Gubler, Swensen, Vernon
A general treatment of the chemistry of substances and processes of biological significance.
- 591, 592, 593. **Chemical Literature and Scientific Writing.** (2:1:3 ea.) A.W.S. Broadbent, Nelson
Introduction to use of primary, secondary, and tertiary sources, techniques for searching chemical literature, technical report writing, reviews.
597. **Special Problems.** (Arr.) Registration by permission. Staff
- Graduate Courses**
601. **Geometry of Atoms and Molecules.** (5:5:0) A. Blackham, Broadbent, Nelson
611. **Systematic Inorganic Chemistry.** (3:3:0) W. Bryner, Hansen, Izatt, Nicholes, Peterson
612. ***Chemistry of the Non-Metals.** (3:3:0) S. Offered 1959-60. Hansen, Izatt, Nicholes
613. ***Chemistry of the Metals.** (3:3:0) S. Offered 1960-61. Hansen, Izatt, Nicholes
618. ***Inorganic Syntheses.** (3:0:9) S. Offered 1959-60. Hansen, Izatt
621. **Advanced Analytical Chemistry.** (3:3:0) S. Butler
- 652, 653. **Advanced Organic Chemistry.** (3:3:0 ea.) W.S. Blackham, Broadbent, Nelson
658. **Organic Syntheses.** (4:2:6) W. Blackham, Broadbent, Nelson
- 661, 662. **Chemical Thermodynamics.** (3:3:0 ea.) A.W. Anderson, Hall, Goates, Snow
663. **Reaction Kinetics.** (3:3:0) S. Anderson, Hall, Goates, Snow
681. ***Carbohydrate Metabolism.** (3:3:0) A. Offered 1960-61. Gubler, Swensen, Vernon
682. ***Biochemistry of Amino Acids and Proteins.** (3:3:0) W. Offered 1960-61. Gubler, Swensen, Vernon
683. ***Biochemistry of Lipids.** (3:3:0) S. Offered in 1960-61. Gubler, Swensen, Vernon
688. **Biochemical Preparations.** (2:0:6) A.W.S. Gubler, Swensen, Vernon
697. **Master's Candidate Research.** (Arr.) Staff

699. Thesis for Master's Degree. (Arr.) Staff
711. *Coordination Compounds. (3:3:0) A. Offered 1960-61. Izatt
719. Selected Topics in Inorganic Chemistry. (1-3:1-3:0) Staff
- 725, 726. *Electro-analytical Chemistry. (3:3:0 ea.) A.W. Offered 1960-61. Butler
729. Selected Topics in Analytical Chemistry. (1-3:1-3:0) Staff
751. Mechanisms of Organic Reactions. (5:5:0) A. Blackham, Broadbent
757. *Chemistry of Natural Products. (3:3:0) S. Offered 1960-61. Broadbent, Vernon
758. *Heterocyclic Compounds. (3:3:0) W. Offered 1959-60. Broadbent
759. Selected Topics in Organic Chemistry. (1-3:1-3:0) Staff
- 761, 762, 763. *Statistical Mechanics. (3:3:0 ea.) A.W.S. Offered 1960-61. Snow
764. *Nuclear and Radiochemistry. (3:3:0) S. Offered 1959-60. Anderson
- 765, 766, 767. *Quantum Chemistry. (3:3:0 ea.) A.W.S. Offered 1959-60. Snow
769. Selected Topics in Physical Chemistry. (1-3:1-3:0) Staff
781. *Enzyme Chemistry. (3-5:3:0-6) A. Offered 1959-60. Swensen, Vernon
782. *Biological Oxidations. (3:3:0) W. Offered 1959-60. Vernon
789. Selected Topics in Biochemistry. (1-3:1-3:0) Staff
797. Doctoral Candidate Research. (Arr.) Staff
799. Dissertation for the Ph.D. Degree. (Arr.) Staff

*Offered in alternate years only.

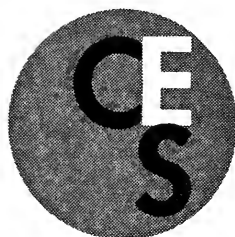
Professors: Fuhriman (chairman, 198 ELB),
Hodson, Rollins.

**Associate
Professor:** Firmage.

**Assistant
Professor:** Calder.

Instructors: Tippetts, A. Wilson, D. F. Wilkes.

Civil Engineering Science



Students entering the department are required to follow specified courses which have been planned to provide a broad training in all basic aspects of civil and structural engineering. Students are able to obtain qualifications in such closely related fields as applied mechanics, architectural engineering, etc.

Entrance Requirements

These include both the general entrance requirements of the university and the particular requirements specified for the College of Physical and Engineering Sciences. Students are urged to include trigonometry and intermediate algebra in high school courses. Where evidence of superior student training in English and up to calculus in mathematics is available and is confirmed by entrance examination, a total of thirteen credit hours may be rebated in the **first** year program listed below.

Grade Requirements

A student must have received an average grade of "C" or better in calculus and physics before being admitted as a regular third-year student in the department. A student who has not obtained this average may petition for special consideration. If he is admitted, it will be on a probationary basis subject to periodic review. If his work subsequently proves unsatisfactory, he will be dropped from the department.

In addition to the regular university academic requirement, a grade of "C" or higher is required in all prescribed courses taken after being admitted as a third-year student. If a grade lower than "C" is received in any prescribed course, the course must be repeated.

Graduation Requirements

The degree of Bachelor of Engineering Science may be obtained by completing the program specified below. Major and minor academic requirements are automatically satisfied by completion of the course specified.

Students who are majoring in and who complete the course in engineering science together with requirements for an air science commission are not subject to the physical education requirements outlined in the section of this catalog titled "Requirements for Graduation." In addition, they may substitute three hours of air science for any three hours of the general education requirements. The program outlined assumes that advantage will be taken of the opportunity to cross reference six hours of religion with six hours of other general educational requirements. Particular information relative to other recommended courses to be included in the general educational requirements or possible options emphasizing various professional aspects may be had by direct application to the department chairman.

The following abbreviations are used: Ch.E., for Chemical Engineering; C.E., for Civil Engineering; E.E., for Electrical Engineering; G.E., for Geological Engineering; M.E., for Mechanical Engineering; and G.E.R. for General Education Requirements.

Suggested Sequence of Courses for Majors

First Year							
	A	W	S				
Chemistry 105, 106, 107	4	4	4	Ch. E. 378, 379	2	2	
Math. 111, 112, 231*	5	5	5	Group Elective (G.E.R. Sec. 4)	4		
English 111, 112, 113**	3	3	3	Religion (cross reference with G.E.R. Sec. 4)	3	3	
M. E. 100	1			Total Hours	17	16	17
Health 130	2						
Physical Education	1	1	1	Fourth Year			
Group Elective (G.E.R. Sec. 3)***			5		A	W	S
Religion	2	4		C. E. 432, 429		3	4
Total Hours	18	17	18	C. E. 402, 403, 404	4	5	5
				Geology 102, 110			4
				C. E. 401, 410	3	4	
				Bacteriology 301, 381 (G.E.R.)	5		3
				Group Elective (G.E.R. Sec. 4)	3	3	
				Religion	2	2	
				Total Hours	17	17	16
				Fifth Year			
					A	W	S
				C. E. 501, 505	5	5	
				E. E. 301, 302, 303	4	4	4
				C. E. 420, 520, 521	4	3	3
				C. E. 430	4		
				C. E. 507****			5
				C. E. 540****			5
				Group Elective (G.E.R. Sec. 4)		5	
				Total Hours	17	17	17
Second Year							
	A	W	S				
Math. 232, 233, 234	5	5	5				
Physics 211, 212, 213	5	5	5				
C. E. 201, 202, 203	3	3	3				
Group Elective (G.E.R. Sec. 3)			5				
Religion (cross reference with G.E.R. Sec. 4)	4	3					
Total Hours	17	16	18				
Third Year							
	A	W	S				
C. E. 301, 302, 303	4	4	5				
C. E. 320, 321	4		4				
Math. 316, 317		3	3				
M. E. 327, 367		4	1				
M. E. 410			4				

*Students with competent backgrounds of algebra and trigonometry from high school instruction may be exempted from Mathematics 111 and 112 subject to passing an appropriate entrance examination. Students without intermediate algebra in high school or without passing math entrance examination will be required to complete Math 101 prior to Math 111.

**The English Department requires a placement examination which may result in students being required to take additional English of a remedial nature, or being permitted to take the more advanced courses of English 115 or 116 requiring only 6 credit hours.

***Recommended subjects to fill the group electives required by the university may be obtained from the department chairman.

****Either C. E. 540 or C. E. 507 are required subjects for graduation. Students may select either with the consent of the department chairman.

Lower Division Courses

- 201. Engineering Graphics.** (3:2:4) A. Prerequisites: Mathematics 111, 112. Staff
Materials and instruments in engineering drawing, introductory practice in orthographic projection, transfer of pictorial sketches and machine part samples to scaled drawing, reproduction processes, drawing principles.
- 202. Engineering Graphics.** (3:2:4)W. Prerequisites: C. E. 201 or equivalent; Mathematics 231 (or concurrent registration therewith). Staff
Graphics principles, including descriptive geometry; projections, perspective applications, and developments.
- 203. Engineering Graphics.** (3:2:4) S. Prerequisites: C.E. 202, Math 232. Staff
Graphical mathematics, empirical equations, nomography, graphical calculus, graphic statics.

Upper Division Courses

- 301. Engineering Mechanics. (Statics).** (4:3:3) A. Home Study also. Prerequisites: College Physics, C.E. 201, 202, 203, and Mathematics 234. Staff
Introductory concepts of mechanics, force systems and problems of equilibrium applied to structures, centers of gravity and centroids, elementary hydrostatics, friction in engineering problems, beam problems, virtual work.
- 302. Engineering Mechanics (Dynamics).** (4:3:3) W. Home Study also. Prerequisite: C. E. 301. Staff
Definitions and principles of kinematics and kinetics; engineering applications in terms of force, mass, acceleration, work and energy, impulse and momentum, periodic motion.
- 303. Engineering Mechanics (Mechanics of Materials).** (5:4:3) S. Home Study also. Prerequisite: C. E. 301. Staff
Fundamental concepts in terms of elastic stress and strain relations; cylinders and spheres under pressure; problems of torsional load; beam theory including bending stresses, complex stress, calculation of deflection and continuity aspects; two-dimensional elastic theory.
- 304. Engineering Mechanics (Dynamics).** (4:3:3) W. For electrical engineers. Prerequisites: C. E. 301, Math 317. Rollins
This course is specially designed for E.E. students. Basic concepts of dynamics applied to particles, systems of particles, rigid bodies vibration systems, non-rigid particles systems and an introduction to selective topics in advanced methods in dynamics. Vector notations used in the treatment of all topics.
- 320. Surveying I.** (4:3:3) A. Prerequisites: Civil Engineering 201, 202, 203. Calder
Lectures and field work in measurements of distances, angles, and differences of elevation using the usual survey methods and instruments; preparation of notes; adjustments; simple triangulation and traverses; plane table, tacheometry.
- 321. Engineering Measurements.** (4:3:3) S. Prerequisite: C. E. 320. Calder
More advanced concepts in survey theory including curve and earthwork survey, astronomical observations, introductory mining survey, photogrammetry and map projections. Emphasis is placed on engineering uses of survey techniques.
- 401. Properties of Materials.** (3:2:3) A.W. Prerequisite: C. E. 303 or consent of instructor. Staff
Theories and procedure of physical testing of materials, introduction to failure theories and solid state concept of behavior of materials; the mechanics of deformation.

- 402. Structures 1.** (4:3:3) A. Prerequisite: C. E. 303. Firmage
Theory and design of statically determinate frame structures in steel and timber; loading problems, influence lines, deflection.
- 403. Structures 2.** (5:4:3) W. Prerequisite: C. E. 402. Firmage
Continuation of Civil Engineering 402; web girders, mill buildings, column and joint details.
- 404. Structures 3.** (5:4:3) S. Prerequisite: C. E. 403. Firmage
Continuation of Civil Engineering 403; theory and design of elastic approach to reinforced concrete structures; proportioning of concrete structures; building code requirements.
- 410. Concrete Technology I.** (4:3:3) W. Prerequisites: Geology 110, C. E. 303. Hodson
Manufacture and testing of cements, technology of concrete materials and concrete mix design; techniques of concrete handling, placing and treatment; laboratory work.
- 420. Elementary Soil Mechanics.** (4:3:3) A. Prerequisites: Geology 110 and General Physics. Rollins
Basic physico-chemical characteristics of soils. The soil water system. Permeability seepage and associated uplift pressures. Consolidation theory, strength theory and the shearing strengths of sand and clay. Earth pressure theories, slope stability analysis and applied aspects.
- 429. Hydraulic Design.** (4:3:3) A. Prerequisite: C. E. 432. Fuhriman
Theory and design of water control and water conveyance structures such as dams, pipe-lines, open channels, hydraulic transitions.
- 430. Sanitation and Public Health.** (4:3:6) A. Prerequisites: C. E. 429, Bact. 301. Three lectures, two project periods per week. Fuhriman
Review of public health engineering. Application to design, construction and operation of water supply and sewerage systems.
- 432. Hydrology.** (3:2:3) S. Prerequisite: M. E. 410. Fuhriman
A study of water as it occurs in nature; relationships between precipitation, evaporation, infiltration, transpiration, groundwater, and stream runoff; methods of collection of hydrologic data and their use in water resource and flood control studies.

Advanced Undergraduate or Graduate Courses

- 501. Structures 4.** (5:3:6) A. Prerequisite: C. E. 404. Hodson
Theory and design of statically indeterminate structures, redundant frames, strain energy methods, Castigliano's theorems, slope-deflection equations and relaxation methods, associated drawing office work.
- 504. Theory of Elasticity.** (5:4:3) A. Prerequisites: C. E. 401, Mathematics 315, 316. Hodson
Theory of elastic behavior, complex stress failure and failure theories, selected experimental work.
- 505. Advanced Structures.** (5:3:6) W. Prerequisite: C. E. 501. Hodson
Continuation of Civil Engineering 501. Selected topics in advanced structural theory and design.
- 507. Experimental Stress Analysis and Computations.** (5:3:6) S. Prerequisites: C. E. 404, Math. 315, 316. Hodson
Elementary survey and demonstrative exercises in experimental stress analysis methods and techniques. Computations involved in this and other civil engineering fields using digital and analog computers.

- 510. Concrete Technology II.** (5:3:6) S. Prerequisite: C. E. 410. Hodson
Basic behavior of concrete materials; introductory micromeritics; physical behavior of set concrete; cement additive and replacement compounds applied to concrete performance; examination of physical and chemical factors; special techniques.
- 520. Foundation Engineering.** (3:2:3) W. Prerequisite: C. E. 420. Rollins
Subsurface exploration, bearing capacity concepts, settlement of structures, and basic principles of foundation design.
- 521. Roads and Pavements.** (3:2:3) S. Prerequisite: C. E. 520. Rollins
Traffic studies, geometric design, grade separations, and interchanges. Properties subgrades, base courses, bituminous materials, and surface pavements. Theory and practice in flexible pavement design. Design of concrete pavements, techniques of road construction.
- 540. Professional Aspects of Civil Engineering.** (5:3:6) S. Prerequisite: fifth year standing in Civil Engineering Science. Staff
Professional, legal, and economic problems of the civil engineers, including contracts, specification writing and ethics. Various applied exercises are required.
- 594, 595, 596. Special Problems in Civil Engineering.** (1-3:Arr.:Arr.) A.W.S. Prerequisite: fifth year standing in engineering and permission of the department chairman. Staff
Selected problems for the field of civil engineering which will enable the student to apply his fundamental knowledge to their solutions.

Clothing and Textiles



Assistant Jorgensen (chairman 2254 SF
Professors: LC), M. S. Potter.

Instructors: Argyle, Carlson, Domgaard, E. L.
Gardner, C. J. Robinson, Trost.

Courses in the Department of Clothing and Textiles help the student understand clothing as it relates to personal needs and to the needs of family members. Consideration is given to the satisfaction of desires to express creative abilities, the understanding of fabrics (their selection, use and care), economy, and the comfort and health of the body. The curriculum offers experience in clothing selection, buying, design, and construction; provides instruction in the identification and quality of performance of textiles; and engenders an appreciation for the history of costume and textiles.

Study in the Department of Clothing and Textiles, combined with experience and an appropriate minor, leads to a variety of professional opportunities. Students prepare for careers in such fields as professional buying, textile testing, fashion illustrating, promotional fashion work, dressmaking, demonstrating, phases of garment manufacturing, and dress and fabric designing. Background is also provided for graduate study in college teaching, research, and extension services.

For minors in clothing and textiles, a total of at least 20 credit hours in the department is required. A minimum of one course in at least 3 of the 4 areas listed below is suggested:

Construction: Clothing and Textiles 105, 115, 225, 335, 355, 475, 595.
Textiles: Clothing and Textiles 260, 560, 590, 594.
Design and Selection: Clothing and Textiles 110, 124, 340, 345.
Economics and History: Clothing and Textiles 330, 430, 370, 472.

For majors in clothing and textiles, a minimum of 32 credit hours in the department is required, including at least 5 hours in each of the four areas listed above. A special problem (CT 594 or 595) is expected. These hours must be combined with enough credit in the college to total 60 hours. Included shall be:

	Hours
Economics and Management of the Home	3
Food and Nutrition	4
Housing and Design	3
Human Development and Family Relationships	6
Total Hours	16

Suggested Program for Majors

Freshman Year			
	Hours		Hours
Religion*	6	Psychology 111	5
English**	9	Art 110*	2
Phys. Ed. and Health**	5	Family Living 101	1
Chemistry 101, 102 or		Clothing and Textiles 110,	
111, 112, 113	9 or 15	115, 225	8
		Electives	4-7

Sophomore Year

	Hours
Religion*	6
Physics 104	3
Bacteriology 121	4
Zoology 105 or 164	5
Economics 101 or Agr. Econ. 101	5
Food and Nutrition 110, 240	4, 8
Housing and Design 120, 335, or 360	2, 3
Human Development and Family Relationships 210, 211	3, 4
Clothing and Textiles 260	3
Electives	7-13

Junior Year

	Hours
Religion*	6
English (literature)	3
History 170 or 180	5
Art	2
Econ. and Mgt. of the Home 330	3

Hum. Dev. and Fam. Rel. 322, 360, 361	3
Clothing and Textiles (Courses toward major)	10
Electives	16

Senior Year

	Hours
Religion*	6
English (literature)	3
Humanities and Aesthetics (art music, speech)	6
Homemaking Education 377, 381	6
Econ. and Mgt. of the Home 470	4
Clothing and Textiles (courses toward major)	11
Electives	11-13

*Required

**Required during year listed.

Students interested in textile design may complete a major in clothing and textiles with a minor in art. The following courses are recommended: Art 111, 121, 304, 314, 350, 352, 362, 366.

Those interested in costume design may complete a major in clothing with a minor in art. The following courses are recommended: Art 111, 122, 233 or 333, 306, 313, 343, 352, 362, 366.

Those interested in fashion merchandising may complete a major in clothing and textiles with a minor in business management. The following courses are required: Business Management 347, 455, and 456, plus 5 hours selected from among Business Management 458, 479, 480, 481, 555, 556, or, with the permission of the adviser, 315, 420, and 469.

Students who combine a clothing and textiles major with a minor in journalism are encouraged to elect Journalism 101, 211, 490, and 571. Journalism 315 and 330 are recommended.

Majors in clothing and textiles who desire to teach in secondary schools should complete a double major in homemaking education and clothing and textiles. (See requirements for homemaking education.) This plan requires at least two additional quarters, or thirty-three to thirty-six more credit hours.

Courses in other departments that might be of interest to students in clothing and textiles are Art 250, Print Making; Art 259, Ceramics; Art 263, Crafts; Art 406, Art History and Appreciation; Art 366, Metal Work and Jewelry; Housing and Design 120, Weaving; Housing and Design 360, Home Furnishing; Industrial Arts 119 or 319, Upholstery; and Industrial Arts 464, Plastics.

Many of the following courses are of value to both men and women. (For more information see section on College of Family Living.)

Lower Division Courses

105. Elementary Clothing Construction. (2:0:4) A.W.S. No credit given toward a major in clothing and textiles. Argyle, Staff

Service course for students with little or no experience in sewing. Construction of garments such as blouses, skirts, jumpers, cotton dresses, house coats and pajamas.

- 110. Selection and Care.** (2:2:1) A.W.S. Argyle, Carlson, Gardner
Self-improvement and self-expression approached through study of elements and principles of design as applied to selection and wearing of clothes and accessories; planning, cost, and care of wardrobe; personal analysis—grooming, posture, poise and personality.
- 115. Dress Construction.** (3:0:6) A.W.S. Staff
Factors that influence choice of patterns and materials for dresses. Construction of a tailored dress with emphasis on techniques and procedures.
- 124. Clothing Selection and Care.** (1:1:1) A.W.S. Staff
Designed to help men students develop good taste and judgment of values in clothing selection and purchase. Practical experience provided in clothing care, choice of color, fabric and style.
- 225. Design and Construction.** (3:0:6) A.W.S. Prerequisite: Clothing and Textiles 115. Domgaard, Gardner, Jorgensen
Introduction to pattern analysis; modification of commercial patterns. New techniques, design problems, and dressmaking skills applied to construction of afternoon and evening dresses.
- 260. Textiles.** (3:3:3) A.W.S. Domgaard, Potter
Natural and synthetic textile fibers; yarns, methods of fabrication, dyes, finishes, properties, and uses of fabrics from the consumer point of view.

Upper Division Courses

- 330. History of Costume.** (3:3:0) A. Jorgensen
Social, economic, and political influence on dress. Study of costume as expression of the life of the people and as basis for interpreting modern fashions.
- 335. Family Clothing.** (3:0:6) A.W.S. Prerequisites: Clothing and Textiles 225 and 260. Domgaard, Jorgensen
Problems involving selection, cost, care, construction and remodeling of clothing for family members.
- 340. Costume Design.** (3:2:4) W. Prerequisites: Art 110 or Clothing and Textiles 110 and 115; recommended prerequisites: 225 and 330. Potter
By use of various media for inspiration, opportunity for creative experience is given in applying principles of line, texture, and color to clothing design.
- 345. Draping and Flat Pattern Design.** (3:1:5) S. Prerequisites: Clothing and Textiles 225 and 260; recommended prerequisites: 330 and 340. Gardner
Creative design achieved through techniques of draping on individualized dress form and of flat pattern design.
- 355. Tailoring.** (4:3:9) A.S. Prerequisites: Clothing and Textiles 225 and 260; recommended prerequisite: 110. Domgaard, Gardner
Custom tailoring techniques applied to construction of coats and suits.
- 370. Consumer Problems in Clothing and Household Textiles.** (2:2:0) A.W. Staff
Determining factors in selection and purchase of family clothing articles and household fabrics, such as linens, rugs, draperies, and upholstery.
- 430. Historic Textiles.** (3:3:0) S. Prerequisite: Clothing and Textiles 260. Potter
History and development of textile fabrics, including weaves and patterns; hand-made lace, tapestry, and oriental rugs.
- 472. Fashion Industry.** (2:2:0) W. Carlson
History, development and function of fashion industry and garment production; fashion designers, fashion cycles and trade organizations.

- 475. Construction Techniques.** (2:0:6) A.W. Prerequisite: Clothing and Textiles 225. Jorgensen
Comprehensive course in sewing techniques. Preparation of illustrative material for aid in teaching.

Advanced Undergraduate or Graduate Courses

- 560. Advanced Textiles.** (3:3:3) A. Prerequisites: Clothing and Textiles 260, Chemistry 101 and 102. Potter
Testing physical and chemical properties of fibers and fabrics to determine their use and care. Recent textile developments.
- 590. Readings.** (2:2:0) S. Prerequisite: at least 17 hours of clothing and textiles. Potter
Reports and discussions on current literature in clothing and textiles.
- 594. Special Problems in Textiles.** (Arr.) A.W.S. Staff
- 595. Special Problems in Clothing Construction.** (Arr.) A.W.S. Staff

Comparative Literature

(See courses in English.)

Dairy Husbandry

(See courses in Animal Husbandry.)

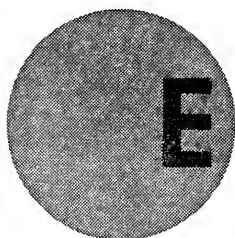
Dramatic Arts

(See courses in Speech and Dramatic Arts.)

Drawing

(See courses in Industrial Education.)

Economics



Professors: H. R. Clark, G. T. Nelson (chairman).

Associate Professors: H. C. Nielson.

Assistant Professors: Davies*, B. D. Gardner.

Instructors: C. H. Bradford*, W. B. Doxey, Hurren, Rickenbach.

The Economics Department serves three types of students:

1. The economics major, for whom a wide range of challenging areas is available.
2. All business students, assisting them to see where their specialties fit into the general economic picture.
3. The general university student, aiding him in his role as a consumer, worker, and citizen.

The philosophy of the department is to provide a liberal background to serve as a basis for entrance into many professional areas. Thus, a minimum of special courses is required, allowing the student considerable flexibility in developing his own program.

Several programs are available to serve students majoring in economics:

1. General Business Economics—for students desiring to go directly into business.
2. Labor Relations and Labor Economics—for those intending to make labor relations a profession.
3. Political Economics—for those contemplating law or government service.
4. Economic Theory—for students intending to do graduate work in economics or allied fields.
5. International Economics—for those desiring to enter foreign service or engage in international trade.
6. Statistics—for students desiring to become statisticians or research economists.

Requirements of all majors: Accounting 101 or 201, and 230; Business Management 340, 342, 347, and 480 or 481; Economics 101 or 111, 274, 331, 332 or 532, 345, 453, 580, and 586.

Recommended courses for majors interested in General Business Economics and Economic Theory:

Accounting 102 or 202, and 332.

Business Management 451 and 454.

Lower Division Courses

- 101. Economic Principles and Problems.** (5:5:0) A.W.S. Home Study also. (G-SS) Staff
Basic general education course in economics to prepare students for citizenship by training in fundamental economic principles and developing an understanding of the most important aspects of some of the critical economic problems facing America and the world today.
- 102. Economic Principles and Problems.** (3:3:0) A.W.S. (G-SS). Prerequisite: Economics 101. Staff
A continuation of economic principles and problems with emphasis given to modern-day economics.
- 111. Economic Principles and Problems.** (5:5:0) A.W.S. (G-SS) Staff
An intensive analysis of basic economic principles and problems. Designed for superior College of Business students and others who can give evidence of their ability to meet the standards required.
- 274. Economic and Financial History of the United States.** (5:5:0) A.W.S. Home Study also. (G-HA) Doxey
A study of the important economic developments in the history of the United States. Special attention is given to their effect on the present day economy.

Upper Division Courses

- 331. Elementary General Statistics.** (3:3:0) A.W.S. Prerequisite: Accounting 230 or equivalent. Gardner, Nielson
A general beginning course in statistics suitable for students from any department. The course includes measures of central tendency and dispersion, sampling, elementary probability and inference, and linear correlation analysis.
- 332. Business Statistics.** (2:2:0) A.W.S. Prerequisite: Economics 331 or equivalent. Gardner, Nielson
A business statistics course dealing with sources of economic data; graphical and tabular presentation of data; index numbers; and trend, seasonal, and cyclical fluctuations.
- 345. Intermediate Economic Analysis.** (5:5:0) A.W.S. Prerequisite: Economics 101 or 111. Staff
Price, distribution, and national income analysis.
- 431. Statistical Inference.** (3:3:0) A.S. Prerequisite: Economics 331 or equivalent. Gardner, Nielson
Includes probability, estimation and tests of hypotheses. Use of student's t-test, Chi square, analysis of variance, confidence intervals.
- 453. Money and Banking.** (5:5:0) A.W.S. Clark
Principles of money and banking as related to monetary and banking history of the United States.
- 461. Labor Problems and Labor Relations.** (3:3:0) A.S. Home Study also. (G-SS) Davies
Rise and growth of labor organizations resulting from modern industrialization, public regulation, organization of the wage system, and problems of labor-management relationships.

Advanced Undergraduate or Graduate Courses

- 532. Advanced Business Statistics.** (3:3:0) W. Gardner, Nielson
- 533. Business Research Methods.** (3:3:0) S. Nielson
- 534. Sampling Techniques.** (3:3:0) A. Nielson

550. **Economics of Finance.** (5:5:0) W. Doxey
556. **Transportation and Traffic Management.** (5:5:0) S. Staff
558. **International Trade and Finance.** (5:5:0) S. Doxey
562. **Collective Bargaining and Industrial Relations.** (3:3:0) W. Prerequisite: Economics 461 or permission of instructor. Davies
563. **Labor Law.** (3:3:0) W. Prerequisite: Economics 461 or permission of instructor. Davies
575. **Government Finance.** (5:5:0) A. (G-SS) Staff
Financing of federal, state and local government. Includes a study of expenditures, taxes, budgeting, and government financial policies.
576. **Government and Business.** (5:5:0) W. Staff
580. **History of Economic Thought.** (5:5:0) A. (G-HA except for economics majors) Davies
The development of economic thought from the Greeks to the present day.
586. **Advanced Economic Theory.** (5:5:0) S. Prerequisite: Economics 345. Gardner
- 593, 594, 595. **Seminar.** (1-2:1-2:0 ea.) A.W.S. Staff

Graduate Courses

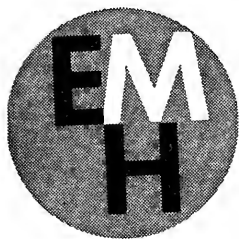
681. **Contemporary Economic Thought.** (3:3:0) W. Davies
682. **Business and Economic Fluctuations.** (3:3:0) A. Nelson
683. **Comparative Economic Systems.** (3:3:0) S. Staff
- 696, 697, 698. **Research.** (Arr.) A.W.S. Staff
699. **Thesis for Master's Degree.** (Arr.) Staff

These courses also count in Economics:

- Business Management 451. Investments.** (5:5:0)
- Business Management 454. Real Estate and Urban Land Economics.** (5:5:0)
- Business Management 573. Industrial Quality Control.** (3:4:0)
- Geography 223. Economic Geography.** (5:5:0)
- Agricultural Economics 580. Agricultural Policy.** (3:3:0)
- Agricultural Economics 530. Intermediate Statistics.** (3:3:0)
- Agricultural Economics 531. Advanced Statistics.** (3:3:0)

Instructors: V. Barnett (chairman, 2254 SF LC), S. Lewis, C. Robinson.

Economics and Management of the Home



The courses in the Department of Economics and Management of the Home provide an opportunity to study the management of family resources in terms of the goals of all members of the family. The student is helped to understand that choices in regard to the uses of material goods, time, energy, money, abilities, and skills are made primarily on the basis of family relationships and the optimum development of the individual.

A minor is offered in the department. A major is offered in conjunction with the Department of Housing and Design for students interested in becoming county home agents or wishing to do home service work for commercial companies.

County Home Agent Work: Many opportunities are available for women in this field. County home agents are cooperatively employed by the United States Department of Agriculture, the State University, and the county offering employment. Maturity of judgment and understanding are essential personality characteristics for those interested in this type of work.

Home Service Work: Many utility and food manufacturing companies hire qualified women to demonstrate their products; they are designated in the field as home economists in business.

For a combined major in Economics and Management of the Home and in Housing and Design a total of thirty-two credit hours in the two departments is required. For graduation from the College of Family Living these hours must be combined with enough credits in the college to total sixty hours.

Included shall be clothing and textiles, ten hours; food and nutrition, ten hours; human development and family relationships, eight hours; homemaking education, seven hours.

The following is a suggested program for a composite major in Economics and Management of the Home and in Housing and Design.

Freshman Year

	Hours		
Religion	6	Physics 104	3
English	9	Psychology 111	5
Physical Education	3	Food and Nutrition 110	4
Health 130	2	Clothing and Textiles 105, 110, or 115	2-3
Art 110	2	Economics and Management 130	3
Chemistry 101, 102	9	Family Living 101	1
		Electives	4-6

Sophomore Year

	Hours
Religion	6
Bacteriology 121	4
Economics 101, 111, or *Agr. Economics 101	5
Humanities and Aesthetics	4
Speech 102	3
Zoology 105 or 164	5
Clothing and Textiles 225	3
Clothing and Textiles 260	3
Food and Nutrition 264, 265	3, 2
Housing and Design 135	3
H.D.F.R. 210, 211	4
*For County Home Agents	

Junior Year

	Hours
Religion	6
English (literature)	3
History 170 or 180	5
Journalism 211	3
Speech 103	2

Clothing and Textiles 335	3
Economics and Management 325	3
Economics and Management 330	3
Food and Nutrition 255, 256	3, 1
H.D.F.R. 360, 361	3, 3
Housing and Design 335, 360	3, 3
Electives	10-12

Senior Year

	Hours
Religion	6
Sociology 423	3
Business 275	3
Clothing and Textiles 355	4
Clothing and Textiles 475	2
Economics and Management 350	2
Economics and Management 470, 580, 590, 595	4, 2, 3, 3
Food and Nutrition 340	4
Homemaking Education 478	4
H.D.F.R. 361	3
Housing and Design 375	2
Electives	10-12

Courses in other departments recommended for students who are training to be county home agents are Art 263; Clothing and Textiles 110, 370; Food and Nutrition 470; Horticulture 103, 112; Instruction 406, 605; Nursing 288; Physics 177; and Recreation 371.

Courses recommended for students training to be home economists in business are Art 240, 448; Business Management 340, 420, 455; Clothing and Textiles 110, 225; Instruction 406, 605; Horticulture 112; Physics 177; and Speech 241, 255.

Some of the following courses are planned for both men and women.

Lower Division Courses

130. Management for Effective Living. (3:3:0) A.W.S. Barnett, Lewis, Robinson
This course is designed for effective living in all aspects of college and family life. It includes effective budgeting of time, energy, money, work simplification, meal planning, recreation, and use of leisure time.

265x. Consumer in the Market. (3) Home Study only. Bastian
Aids toward intelligent buying of commodities. Effect on the consumer of present market practices. Consumer protection, including labeling of merchandise. Comparison of quality in various household items. Fifteen lessons and a final examination.

Upper Division Courses

325. Family Finance. (3:3:0) A.W.S. Prerequisite: Economics 101. Barnett
Economic problems of most direct concern to the family of today. Sources and adequacy of family income, its apportionment and expenditure in terms of family needs.

330. Home Management. (3:3:0) A.W.S. Home Study also. Prerequisites: Economics and Management 325 and Human Development and Family Relationships 361. Barnett, Bastian, Robinson
Decision making related to the use of resources for attainment of personal and family goals from time of marriage to retirement. Management related to specific resources, such as time, energy, material goods, skills, abilities, and interests.

- 350. Simplification of Household Tasks.** (2:1:2) S. Robinson
 Application of work simplification principles in the home. Laboratory experience in the organization and simplification of techniques used in household operation. Effective planning of work centers and storage areas.
- 470. Homemaking Apartment.** (4:4:20) A.W.S. Prerequisites: Economics and Management of the Home 330 and Food and Nutrition 240 or 340. Lewis
 An opportunity is provided for upper division students to make practical application of all management principles in a group-living situation.
 Arrangements must be made in advance with the adviser. Students live in the apartment one half of the quarter (block). Food and incidentals average \$40.00 for the five-week period (\$5.00* payable at registration the quarter before residence; \$35.00 payable at beginning of residence.)
 *Not returnable.
- 470x. Homemaking Apartment.** (4) Home Study only. Prerequisite: Food and Nutrition 115x or (115) and Economics and Management of the Home 330. Bastian
 This course is designed to give practical help to homemakers with a family of two or more children in the effective use of time, energy, money, equipment and other resources to create a happier home atmosphere through improved group relationships and the optimum development of each family member. It is necessary that women electing this course arrange to come into the Homemaking Apartment one day each week for a period of four weeks. Twenty projects. No final examination.

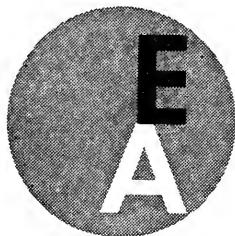
Advanced Undergraduate or Graduate Courses

- 580. Readings in Economics and Management of the Home.** (2:2:0) Prerequisite: 16 hours of economics and management of the home. Staff
- 590. Problems in Management of the Home.** (Arr.) Prerequisites: 18 hours of economics and economics and management of the home and permission of instructor and dean. Staff
 Independent study of a special problem in economics of the home under direction of an instructor.
- 595. Problems in Economics of the Home.** (Arr.) Prerequisites: 18 hours of economics and economics and management of the home and permission of instructor and dean. Staff
 Independent study of a special problem in economics of the home under direction of an instructor.

Educational Administration

Professors: Burrup, Clarke, J. C. Moffitt, Morrill, Oakes (chairman, 126 McKay), Woolf.

Associate Professors: Barnett, Eastmond, Rigby.



Upper Division Course

310. **The State, the School, and the Teacher.** (3:3:0) A.W.S. Home Study also. Staff
Development of the public school system; relationship of the school to the community school organization and administration with special emphasis on the Utah system; legal relationship and responsibility of federal, state and local agencies to education; professional responsibilities of teachers.

Graduate Courses

Prerequisite to all courses: 33 hours of education.

600. **Organization and Administration of Public Schools.** (3:3:0) A.W.S. Burrup, Eastmond, Morrill, Oakes
610. **Public School Finance.** (3:3:0) A.W.S. Barnett, Burrup, Eastmond, Morrill
619. **Personnel Problems of the School Staff.** (3:3:0) A. Barnett, Eastmond
626. **School-Community Relations.** (3:3:0) A. Eastmond, Moffitt, Morrill
631. **The Elementary School Principalship.** (3:3:0) S. Morrill, Oakes
644. **Work of the Secondary School Principal.** (3:3:0) W. Clarke, Morrill, Woolf
651. **Administration of Auxiliary Services.** (3:3:0) W. Barnett
654. **Administration of Pupil Personnel.** (3:3:0) S. Burrup, Oakes
665. **Supervision of Education.** (3:3:0) A.W.S. Clarke, Moffitt, Woolf
673. **School Law.** (3:3:0) W.S. Barnett, Burrup, Oakes
- 690, 691, 692. **Seminar.** (1-3:1-3:0 ea.) A.W.S. Staff
- 693, 694. **Independent Readings.** (1-3:3-9:0 ea.) A.W.S. Staff
- 696, 697. **Independent Research.** (1-3:3-9:0 ea.) A.W.S. Staff
698. **Field Project.** (Arr.) Staff
699. **Thesis for Master's Degree.** (Arr.) Staff
700. **The Organization of Schools.** (2:2:0) W. Staff

712. **The Junior High School.** (3:3:0) A. Clarke, Woolf
723. **The Senior High School.** (3:3:0) W. Clarke, Woolf
730. **Business Administration of the Public Schools.** (3:3:0) S. Burrup
737. **Research and Survey Procedures in Educational Administration.** (3:3:0) S. Morrill, Oakes
738. **The Group Process in Educational Administration.** (3:3:0) W. Moffitt, Morrill
748. **College and University Organization and Administration.** (3:3:0) A. Oakes
749. **Evaluation and Accreditation of Educational Institutions.** (3:3:0) W. Oakes, Woolf
750. **Public School Building Programs.** (3:3:0) A.S. Morrill
786. **Problems of Taxation and Financial Support of Public Institutions.** (3:3:0) W. Burrup, Eastmond
798. **Doctoral Field Project.** (Arr.) Staff

Educational Philosophy and Programs

Professor: Woodruff.

Assistant Professors: Alley (chairman, 202 McKay),
Ovard.



This department is devoted to a critical examination of society for the purpose of determining the general values upon which our educational system should be founded. The approach is historical, political, sociological, religious, and philosophical. The courses also deal with the professional nature of education and educators and the roles of non-educators and educators in public education.

The courses are offered in four divisions: Philosophy of Education, History of Education, The School in the Social Order, and Educational Objectives and Programs. Except for one service course, a seminar, and readings and research courses, all courses are at the graduate level.

Upper Division Courses

415. **Educational Values.** (3:3:0) A.W.S. Home Study also. Prerequisites: Instruction 449 or 479; these may be taken in the same quarter as Ed. Phil. 415 on the "block" plan. Alley, Ovvard
- Identification and analysis of fundamental American values and of value systems upon which American educational objectives should be based. Problems and concepts encountered in earlier courses in the educational sequence are examined in the light of the values studied.
- 490, 491. **Seminar.** (1-3:1-3:0 ea.) A.W.S. Staff
- 493, 494. **Independent Readings.** (1-3:3-9:0 ea.) A.W.S. Staff
- 496, 497. **Independent Research.** (1-3:3-9:0 ea.) A.W.S. Staff

Graduate Courses

Philosophy of Education:

602. **Educational Values and the Experienced Teacher.** (3:3:0) Su. Alley, Ovvard
604. **Comparative Current Educational Philosophies.** (3:3:0) A.W.S. Alley
605. **Educational Thinkers and Contemporary Issues.** (3:3:0) W. Alley

History of Education:

615. **Educational Classics.** (3:3:0) S. Alley
621. **History of Education in Europe and the Near East.** (3:3:0) A. Alley, Ovvard
622. **History of Education in America.** (3:3:0) W. Alley, Ovvard

631. Education in a World Setting. (3:3:0) A. Ovard

The School in the Social Order:

642. Education in the Social Order. (3:3:0) A. Ovard

Educational Objectives and Programs:

662. Philosophy of Program Planning. (3:3:0) S. Woodruff

General Courses:

690, 691. Seminar. (1-3:1-3:0 ea.) A.W.S. Staff

693, 694. Independent Readings. (1-3:3-9:0 ea.) A.W.S. Staff

696, 697. Independent Research. (1-3:3-9:0 ea.) A.W.S. Staff

698. Field Project. (Arr.) Staff

699. Thesis. (Arr.) Staff

Educational Research and Services



Professors: Egbert (chairman, 254 McKay), Lloyd, Reid, Romney, Woodruff.

Associate Professors: S. G. Clark*, Downing.

Assistant Professors: J. M. Harris, V. H. Jensen, Krid-
er, Parker.

Instructors: Orrock, M. L. Wilson.

The offerings and programs in this department are of two kinds: (1) Those which provide teachers and special personnel with the necessary understandings and insights into human behavior and learning which they will need in working with normal and with exceptional students, and (2) those which promote research and extend educational services to the university and the public schools. In this latter instance the departmental graduate programs in personnel and guidance and in special education are of particular importance to the schools.

A program for training of school psychologists has also been introduced in collaboration with the Department of Psychology. This is a master's degree program, but interested students should begin taking the foundation courses early in their undergraduate years.

Students interested in these three graduate programs should contact the department chairman for details. The courses are listed in three groups: Educational Psychology and Guidance, Special Education, and General.

EDUCATIONAL PSYCHOLOGY AND GUIDANCE COURSES

Lower Division Course

102. **College and Life Adjustment.** (3:3:0) A.W.S. Orrock
Major emphasis is given to personal and social development with consideration also to wise vocational and educational planning.

Upper Division Courses

304. **Educational Psychology.** (3:3:0) A.W. Home Study also. Prerequisite: H.D. F.R. 210, Psychology 320 or Psychology 321. Romney
Enrollment limited to homemaking education majors and those with composite majors which include psychology. Others should receive special permission from the instructor. Psychological facts and principles related to the teaching-learning situation.
403. **Development and Learning.** (5:5:0) A.W.S. Downing, Egbert, Harris, Krider
410. **Tests and Measurements for the Classroom Teacher.** (3:3:0) W. Home Study also. Harris
Emphasizes techniques for construction and use of classroom tests as measuring and teaching devices; consideration also given to standardized tests and evaluational techniques other than testing.

Advanced Undergraduate or Graduate Courses

- 520. Group Guidance Techniques for Teachers.** (3:3:0) A.S. Downing
Acquaints teachers with principles of group dynamics and gives increased understanding of application of these principles in classroom situations.
- 540. Statistical Methods.** (3:3:0) A. Egbert, Parker
Graphic and tabular presentation, measures of central tendency, variability, probability, and linear correlation. This course is required but may not be counted as part of the 45 hours for the master's degree by people majoring in this department.
- 541. Advanced Statistics.** (3:3:0) S. Prerequisite: E.R.S. 540. Egbert
- 550. Guidance Services in Public Schools.** (3:3:0) A.W.S. Downing, Jensen, Parker
Introduction to principles and practices of the guidance program in public schools. Designed for prospective teachers of both elementary and secondary levels. This course is required but may not be counted as part of the 45 hours for the master's degree by people majoring in this department.

Graduate Courses

- 601. Advanced Educational Psychology: Problems of Learning in the Elementary School.** (2:2:0) W. Prerequisite: E.R.S. 305. Egbert, Harris
- 602. Advanced Educational Psychology: Problems of Learning in the Secondary Schools.** (2:2:0) S. Prerequisite: E.R.S. 305. Harris
- 606. Behavior Problems in the Schools.** (3:3:0) A. Prerequisites: E.R.S. 305, 550. Downing
- 610. Educational Tests and Measurements.** (3:3:0) A. Downing, Harris
- 611. Test Techniques in Guidance.** (3:3:0) A. Prerequisite: E.R.S. 550. Jensen
- 612. Diagnosis of Achievement Difficulties.** (3:3:0) W. Prerequisites: E.R.S. 610 or 611. Harris, Krider
- 620. Introduction to Counseling Theory and Practice.** (3:3:0) A. Prerequisite: E.R.S. 550. Downing, Jensen, Reid
- 621. The Case Study and Diagnosis.** (3:3:0) W. Prerequisites: E.R.S. 550, 611, and 620. Downing, Parker
- 622. Group Techniques for Counselors.** (3:3:0) W. Prerequisites: E.R.S. 550 and 620. Downing
- 624. Industrial Counseling.** (3:3:0) Arr. Prerequisites: E.R.S. 550, 620, 651. Staff
- 625. Advanced Counseling Theory.** (3:3:0) W. Prerequisite: E.R.S. 550 and 620. Downing, Parker, Reid
- 640. Evaluation of Educational and Psychological Literature.** (3:3:0) S. Egbert
- 641. Educational Research and Thesis Writing.** (3:3:0) W. Prerequisite: E.R.S. 540. Egbert
- 650. Guidance Workshop.** (3:3:0) Arr. Prerequisite: E.R.S. 550. Staff
- 651. Informational Services in Guidance.** (3:3:0) S. Prerequisite: E.R.S. 550. Clark, Downing
- 652. Guidance Services in the Elementary School.** (3:3:0) S. Prerequisites: E.R.S. 550 and 620. Downing

653. **Administration of Guidance Services.** (3:3:0) S. Prerequisite: E.R.S. 550.
Downing, Reid
656. **Student Personnel Services in Higher Education.** (3:3:0) S. Prerequisite:
E.R.S. 550. Clark, Lloyd
670. **Practicum in Testing.** (3:1:6) A.W.S. Prerequisites: E.R.S. 550 and 611.
Jensen
672. **Practicum in Counseling.** (3:1:6) A.W.S. Prerequisites: E.R.S. 550, 611,
620, and 670. Downing, Parker
- 675, 676. **Practicum in School Psychology.** (3:1:6 ea.) Arr. Prerequisite: consent
of instructor. Staff

SPECIAL EDUCATION COURSES

Advanced Undergraduate or Graduate Courses

560. **Introduction to Education of Exceptional Children.** (3:3:0) A.W.S.
Krider, Wilson
A general course designed to acquaint the student with the causes, recognition, incidence and characteristics of all types of exceptional children. Designed to meet needs of both classroom teacher and person going into special education.
561. **Standard English Braille.** (3:3:0) Arr. Staff
562. **Advanced Standard English Braille.** (3:3:0) Arr. Prerequisite: E.R.S. 561.
Staff
563. **Education of the Visually Handicapped.** (3:3:0) Arr. Prerequisite: consent
of instructor. Staff
564. **Social Aspects of Handicapping Conditions.** (3:3:0) S. Prerequisite: con-
sent of instructor. Krider, Wilson

Graduate Courses

630. **Corrective Teaching Techniques.** (3:3:0) S. Prerequisite: E.R.S. 612 or con-
sent of instructor. Wilson
660. **Education of Exceptional Children.** (3:3:0) S. Prerequisite: E.R.S. 560 or
Psychology 445. Krider
661. **Problems in the Education of Slow-Learning Children.** (3:3:0) W. Pre-
requisite: consent of instructor. Krider
662. **Workshop in Special Education.** (6:6:0) Arr. Prerequisite: consent of in-
structor. Krider
664. **Special Education Services in Public Schools.** (3:3:0) Arr. Su. only. Staff
665. **Medical Aspects of Orthopedically Handicapped Children.** (3:3:0) Arr. Pre-
requisite: consent of instructor. Staff
666. **Problems in the Education of Orthopedically Handicapped Children.** (3:3:0)
Not given this year. Prerequisite: E.R.S. 660. Wilson
667. **Problems in the Education of Mentally Retarded Children.** (3:3:0) Not
given this year. Prerequisite: E.R.S. 660 or consent of instructor. Krider
668. **Observation and Participation in Special Education.** (3:2:5) W. Prequi-
site: consent of instructor. Wilson

- 674. Practicum in Special Education.** (6:1:15) S. Prerequisite: consent of instructor. Krider, Wilson

See also Instruction 624, Arts and Crafts for the Handicapped.

GENERAL COURSES

Upper Division Courses

- | | |
|---|-------|
| 490, 491. Seminar. (1:1:0 ea.) A.W.S. | Staff |
| 493, 494. Independent Readings. (1:3:0 ea.) A.W.S. | Staff |
| 496, 497. Independent Research. (1:3:0 ea.) A.W.S. | Staff |

Graduate Courses

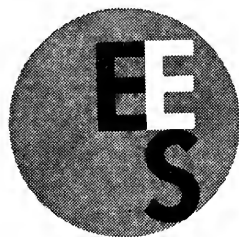
- | | |
|--|-------|
| 690, 691, 692. Seminar. (1:1:0 ea.) A.W.S. | Staff |
| 693, 694, 695. Independent Readings. (1:3:0 ea.) A.W.S. | Staff |
| 696, 697. Independent Research. (1:3:0 ea.) A.W.S. | Staff |
| 698. Field Project for Master's Degree. (Arr.) A.W.S. | Staff |
| 699. Thesis for Master's Degree. (Arr.) A.W.S. | Staff |

Electrical Engineering Science

Professors: Jonsson (chairman, 175 ELB), Bartholomew, H. Fletcher.

Associate Professor: D. Monson*.

Instructors: Chaston, Humpherys.



This department offers a five-year program leading to the degree of Bachelor of Engineering Science in Electrical Engineering. An acoustical option is offered as an alternate course. The student completing the prescribed course of study will receive comprehensive training in electrical engineering which includes communications, electronics, energy conversion, systems and circuits, measurements and automatic control in addition to the general and religious education given to all undergraduate students at Brigham Young University.

Entrance Requirements

In addition to having fulfilled the general entrance requirements of the university, a student entering this department should have completed three units of English and three units of high school mathematics which must include elementary algebra, intermediate algebra, and plane geometry.

Students who have not met these requirements must take extra remedial courses as prescribed by the chairman of this department before, or concurrently with, the regular outlined course of studies.

The high school graduate of above average ability who has completed both college algebra and trigonometry and can demonstrate by examination his comprehension of these subjects may be assigned to the sophomore subjects of physics, calculus, and graphics and thereby complete the five year program in slightly over four years.

Requirements for Major

To obtain a degree in electrical engineering the student must complete the program as described below including the same general educational requirements which apply to the B.S. degree conferred by the Brigham Young University. The following abbreviations are used: Ch.E. for Chemical Engineering; C.E. for Civil Engineering; E.E. for Electrical Engineering; and M.E. for Mechanical Engineering.

Grade Requirements

A student must have received an average grade of "C" or better in analytical geometry, and calculus and in physics before being admitted as a regular third-year engineering student. A student who has not obtained this average but feels that he has the qualifications for undertaking engineering work may petition this department for special consideration. If his work subsequently proves unsatisfactory, he will be dropped from the department. Transfer students and advanced students who have been off the campus for one or more years should apply before June 1 to avoid possible rejection of admission due to deficiencies.

A cumulative average grade of "C" must be maintained in all advanced mathematics and engineering subjects; otherwise the student is placed on a probationary status in the department.

General Education Group Requirements

The General Education Requirements are listed near the front of the catalog. The following information on group requirements is directed particularly to electrical engineering science students:

Group I: Automatically filled by following the outline.

Hours

Group II: Biological Science 8
No specific recommendations are given.

Group III: Social Science 15
The following are particularly recommended:
Economics 101, Economic Principles 5
History 170 or 180, American Heritage (required) 5
Psychology 111, General Psychology 5

Group IV: Humanities and Aesthetics 15
Any course listed in the general education requirements is acceptable. The engineering student will observe that allowance has been made for only 70 hours of general group subjects within the formal program. This implies that the student must usually take advantage of the possibility of cross-referencing six hours of credit between the humanities and aesthetics group and the religion group requirement.

Group V. Religion 24
Any course listed in the general education requirements is acceptable.

Students who are majoring in and who complete the course in engineering science together with requirements for an air science commission are not subject to the physical education requirements outlined under "Requirements for Graduation." In addition they may substitute three hours of air science for any three hours of the general education requirements.

Suggested Sequence of Courses for Majors

Freshman Year

	A	W	S
Chemistry 105, 106, 107	4	4	4
*Math 111, 112, 231	5	5	5
M.E. 100	1		
English 111, 112, 113	3	3	3
Religion	2	2	2
Phys. Ed.	1	1	1
Health 130		2	
Total Hours	16	17	15

*Note Entrance Requirements above for possibility of reducing time required for graduation.

Junior Year

	A	W	S
Math. 318, 317, 316	3	3	3
E.E. 311, 312, 313	3	3	4
E.E. 321, 322		3	2
E.E. 350			3
Ch. E. 378, 379	2	2	
E.E. 315		2	
Geology 102, 110	4		
E.E. 431			2
Religion	2	2	2
Group Electives	3		
Total Hours	17	15	16

Senior Year

Sophomore Year

	A	W	S
Physics 211, 212, 213	5	5	5
Math. 232, 233, 234	5	5	5
C. E. 201, 202	2	2	
C. E. 201 lab., 202 lab.	1	1	
Religion	2	2	2
Group Electives	3	3	5
Total Hours	18	18	17

	A	W	S
E.E. 460, 461	3		4
E.E. 432, 433	4	4	
E.E. 411		2	
E.E. 441, 442, 443	4	4	3
C.E. 301, 303, 304	3	4	3
C.E. 301 lab., 303 lab., 304 lab.	1	1	1
Group Electives		2	5
Total Hours	15	17	16

*Fifth Year				Group Electives	3	6	7
	A	W	S				
M.E. 327, 367, 410	4	1	4	Total Hours	17	17	15
E.E. 462, 463	4	4					
E.E. 467, 468	2	2					
E.E. 591, 592, 593	1	1	1				
Restricted Electives	3	3	3				

*By suitable scheduling a student may find it possible to graduate at the end of the winter quarter.

Restricted electives which may be taken by approval of the department chairman include the following courses: Economics 461, Electrical Engineering 511, 525, 531, 537, 538, 550, 567, 568, any acoustics course, 594, 595, 596; Business Management 340, 342; Physics 351, 352, 353, 555, 556, 557, 558, 559, 560; and Psychology 330, 335, 337.

Fifth Year Acoustical Option (Not offered 1959)

The student will substitute four hours of general education for E.E. 433 of the fourth year in electrical engineering and in addition follow the course prescribed below:

	A	W	S				
E.E. 581, 582, 583	3	3	3	Physics 561, 562, 563	3	3	3
E.E. 462, 463	4	4		Physics 564, 565, 566	2	2	2
E.E. 467, 468	2	2		Group Electives	2	2	8
E.E. 591, 592, 593	1	1	1	Total Tours	17	17	17

Restricted electives which may be taken by approval of the department head include the following courses: Electrical Engineering 433, 511, 525, 537, 538, 567, 568, 584, 585, 586, 594, 595, 596; Mechanical Engineering 327, 410.

Upper Division Courses

301, 302, 303. Elements of Electrical Engineering. (4:3:3 ea.) A.W.S. Prerequisites: Physics 211, 212, 213; Math 234. Staff

Designed for students not majoring in electrical engineering. Study of direct and alternating current circuit theory and machinery, and electronics.

311, 312, 313. Alternating-Current Circuits. (3:3:0, 3:3:0, 4:3:3) A.W.S. Prerequisites: Physics 213, and Mathematics 234, 318, 316, 317 concurrently. Staff

Steady-state alternating current circuits; vectors; complex algebra; series and parallel impedance networks; resonant circuits; non-sinusoidal waves; Fourier analysis. Series-parallel networks; coupled circuits; polyphase circuits; vector loci; network theorems; magnetics; elementary filters; pole-zero theory.

315. Magnetic Amplifiers and Circuits. (2:2:0) W. Prerequisites: E. E. 311. Staff
Conventional magnetic circuits and applications to the saturable reactor and magnetic amplifier.

321. Electrical Measurements. (3:2:3) W. Prerequisites: Physics 211, 212, and 213. E.E. 312 to be taken concurrently. Staff

Study of the theory, use, limitations, accuracy, and calibration of electrical instruments including bridges, recorders, indicators, and standard electrical meters.

322. Electrical Measurements. (2:2:0) S. Prerequisite: E.E. 321. Staff
Transducers, analogs, analog and digital read out systems.

350. Solid-State Electricity. (3:3:0) S. Prerequisite: Physics 213; E.E. 312; Math 318. Staff

Physical properties of crystalline solids. Lattice vibration and energy, dielectrics, conduction, band theory, semiconductors, secondary emission, magnetism, resonance, and relaxation.

- 411. Electro-Mechanical Transients.** (2:2:0) W. Prerequisites: Mathematics 317 and E.E. 313. C.E. 303 concurrently. Staff
Application of classical, operator, and LaPlace transform methods in determining behavior of electrical and electro-mechanical elements under transient conditions.
- 431. Direct-Current Machinery.** (2:2:0) S. Prerequisites: E.E. 313, 315. Staff
Study of direct-current motors, generators, power distribution, applications.
- 432, 433. Alternating-Current Machinery.** (4:4:3 ea.) A.W. Prerequisite: E.E. 313. Staff
Single and polyphase transformers; alternating-current motors and generators; applications. D.C. and A.C. machinery laboratory.
- 434. Alternating Current Machinery Laboratory.** (1:0:3) S. Prerequisite: E.E. 433. Staff
- 441, 442. Electronics.** (4:3:3 ea.) A.W. Prerequisite: E.E. 313. Staff
Study of electron dynamics; vacuum tube characteristics, rectifiers, amplifiers, oscillators, and special purpose tubes.
- 443. Transistors.** (3:2:3) S. Prerequisite: E.E. 442. Staff
Fundamentals of solid state conduction, simple and cascade transistor circuits and push-pull operation.
- 460. Electro-Magnetic Fields.** (3:3:0) A. Prerequisites: E.E. 313, Mathematics 317. Staff
Study of static and dynamic electric and magnetic fields; both classical and vector mathematics will be employed.
- 461. Transmission Lines.** (4:4:0) S. Prerequisite: E.E. 443 concurrently. Staff
The general transmission line and transmission networks.
- 462. Communication Systems.** (4:4:0) A. Prerequisites: E.E. 443, 461. Staff
Circuits and systems used in television, radar, and radio engineering. Pulse Technics.
- 463. U.H.F. Technique.** (4:4:0) W. Prerequisite: E.E. 462. Staff
Lines, wave guides, antennas, wave propagation, generators.
- 467, 468. Communications Laboratory.** (2:0:6 ea.) A.W. Parallels E.E. 462, 463. Staff
Devoted to building and testing circuits studied and designed in parallel theory courses.

Advanced Undergraduate or Graduate Courses

- 511. Servomechanisms.** (3:3:0) Arr. Prerequisites: E.E. 313, 411, 443; Mathematics 317. Jonsson
Theory and application of electrical and electro-mechanical automatic control systems.
- 521. Analog Computers.** (2:2:0) Arr. Prerequisite: E.E. 303 or 443. Bartholomew
Analog function generators, summing circuits, operational amplifiers, integrating and differentiating circuits, limiting circuits and their application, computer scaling.
- 523. Digital Computer.** (3:2:3) Arr. Prerequisite: fourth year standing as an engineer. Bartholomew
The operation of digital data processing systems, programming, and the application of digital methods to the solution of electrical engineering problems.
- 531. Power Systems.** (3:3:0) Arr. Prerequisite: E.E. 433. Bartholomew
Study of power distribution and system protection.

- 537, 538. Advanced Laboratory.** (1:0:3 ea.) S. Prerequisite: E.E. 463. Staff
Each of these courses constitutes a block of ten required experiments in the area of machinery control systems, machinery characteristics and power distribution methods. The student may register for either course or both courses simultaneously.
- 541. Advanced Transistors.** (3:3:0) Arr. Prerequisite: E.E. 443. Staff
Multi-stage amplifiers, oscillators and pulse techniques.
- 550. Illumination.** (2:2:0) Arr. Prerequisites: E.E. 313, 441. Monson
Study of the principles and design of artificial illumination for various applications; lamp characteristics; measurements; costs.
- 567, 568. Advanced Laboratory.** (1:0:3 ea.) S. Prerequisite: E.E. 463. Staff
Each of these courses constitutes a block of ten required experiments in the area of U.H.F. Techniques, electronic circuits, communication systems, pulse forming networks, transmission lines, and filters. The student may register for either course or both courses simultaneously.
- 580. Elements of Acoustics.** (3:0:0) Arr. Prerequisite: fifth year standing in electrical engineering.
Brief course in the fundamentals of sound production, transmission, and reception with an introduction into sound application in public address and other engineering systems.
- 581, 582, 583. Psycho-Acoustics.** (3:3:0 ea.) A.W.S. Prerequisite: E.E. 443. Staff
Study of speech and hearing from a communication engineering viewpoint. Symmetrical analysis of speech and hearing processes are developed. Known experimental facts about speech and hearing are systematically studied and compared with calculated results. Methods of calculating and measuring articulation index of talker-listener pair when using any specified type of communication system.
- 584, 585, 586. Advanced Musical Acoustics.** (2:2:0 ea.) A.W.S. Prerequisites: Physics 661, 662, 663. Staff
Technical study of acoustical behavior of different musical instruments, consideration of sound power output of single instruments and ensembles, stereophonic reproduction of music, possibilities of electronic musical instruments.
- 587. Architectural Acoustics.** (5:5:0) S. Prerequisites: Physics 211, 212, 213. Staff
Fundamental behavior of sound in rooms. Effects of shape and size upon perception of speech and music. Proper use of public address and sound reinforcing systems, sound absorption and insulation properties of different kinds of room walls. Kinds and amounts of sound absorption materials to use in sound treatments of rooms and auditoriums.
- 591, 592, 593. Seminar and Field Trips.** (1:0:3 ea.) A.W.S. Prerequisite: fifth year electrical engineer standing. Staff
Student and faculty presentation of special topics and subjects of current interest. Visits to industries demonstrating varied types of electrical engineering applications.
- 594, 595, 596. Special Problems.** (Arr.) A.W.S. Registration by permission. Staff

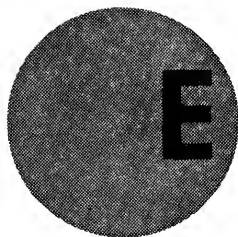
Professors: P. A. Christensen, Jacobs, Rice, Young.

Associate Professors: Britsch (chairman, 308 McKay), Carroll (emeritus), Cheney, B. B. Clark, D. Farnsworth, Hart, C. Larson, Monson*, Spears, O. Tanner.

Assistant Professors: M. J. Clark, Craig, McKendrick, Olson, Smart, Thomas, Thomson, West, Wood.

Instructors: Z. Alder, Bailey, Brady, Cox, Dunn (emeritus), Ellsworth, Esp-
lin, Evans, Grass, Harris, Horton,
Hyde, Hymas, H. Madsen, Mit-
chell, Morrell, Statham, Thayer,
Waterstradt.

English



Freshman English (Marshall Craig, director)

Placement Test. All freshmen are required to take an English placement test at the time of registration.

Freshman Composition. To satisfy the university requirement for freshman composition, all students must complete one of the following sequences: English 111 (or 110), 112, 113, or English 115, 116. Assignment is made on the basis of performance in the placement test. Students who demonstrate a need for remedial work take English 110, 112, 113; students who demonstrate satisfactory ability take English 111, 112, 113; students who demonstrate exceptional ability take English 115, 116; students who demonstrate ability below that expected of college freshmen are required to take English 10 (special fee \$10.00) and to pass satisfactorily another placement test before registration in freshman composition. All students are required to take freshman composition during each quarter of the freshman year unless they are excused by the Director of Freshman English.

Scope of Instruction

The English Department offers courses in writing, literature, and the English language as follows: writing, remedial and methodology courses; grammar, word study, and language courses; novel courses; drama courses; comparative and world literature courses; American literature courses; combined American and English literature courses; English literature courses; and single author courses.

Requirements for an English Major

The department requirement for a major is that a student complete at least forty-five hours in English beyond freshman composition. The following program is prescribed:

	Hours
A. 251, Fundamentals of English for Majors and Minors	5
B. 362, Major Figures of the American Renaissance	5
C. One of the following period courses in American literature	5
361, American Literature to the Civil War.	
363, American Literature since the Civil War.	
D. English Period courses or authorized substitutes	16-20

A major is expected to complete classes in four of the five periods of English literature. At least two of the regular period courses (371, 372, 373, 374, 375) are required; substitutes may be taken as authorized below for one or both of the other two periods:
481 for 371; 541 or 552 for 372; 542 or 553 for 373; 554 for 374;
332 for 375.

Note: If 552, 553, or 554 is taken, it may also be counted as filling the five-hour requirement in comparative or world literature.

- | | |
|--|---|
| E. 382, Shakespeare | 5 |
| F. Comparative or world literature, chosen from the list below | 5 |
| 241, 242, 243, Masters of the Drama, Ancient to Modern. | |
| 552, 553, 554, The Renaissance, Neo-Classicism, and Romanticism in European Literature. | |
| 356, 357, 358, World Classics. | |
| 345, The Spirit of Tragedy in Literature. | |
| G. Grammar, history of the English language, or literary criticism | 5 |
| This requirement, especially for those majors who plan to teach English in high school or college, will ordinarily be met by taking English grammar, although either of the other courses listed below may be substituted with the approval of the department chairman or the student's departmental adviser: English 221, 521, 550. | |
| H. 490, Senior Seminar for English Majors | 2 |

The department provides a reading list which the English major should obtain and begin to employ early in his academic program. During the quarter prior to his graduation, he will be given a departmental examination based on the reading list, the Senior Seminar, and his over-all major program.

In addition to the university requirements for graduation and the departmental requirements for a major, each English major is expected to complete twenty-four hours in one foreign language.

Requirements for a Teaching Major in English

The requirements for a teaching major in English and for the regular major are the same except that the foreign language requirements may be reduced or waived by the department to meet the special needs of some prospective teachers. Such reduction or waivers would necessitate, of course, the substitution of the Bachelor of Science degree for the degree of Bachelor of Arts.

English is one of the subjects comprising the composite major in language arts designed for prospective teachers.

Requirements for a Minor in English

All students minoring in English are expected to complete English 251, preferably in the sophomore year, and to take at least fifteen additional hours of work in English beyond freshman composition (a total of twenty hours plus freshman English). Teaching minors should consult the College of Education section of the catalog for special course requirements. Non-teaching minors in English should select their English courses in consultation with their major department advisers and with the English Department.

Graduate Work in English

A graduate student may major in either American or English literature; he may minor in a subject outside the English Department or in English literature, American literature, or language. It is assumed that anyone granted a Master of Arts degree in English will be well-grounded in the entire field of English and also well-trained in his graduate major and minor.

Each student should check the departmental requirements for an undergraduate major in English and make up the deficiencies in his undergraduate program insofar as possible. Among the forty-five hours required for a Master of Arts degree, each student must take the following courses:

Hours

- | | |
|--|---|
| A. 615, Bibliography and Methods of Research | 2 |
| B. 525, Old English | 5 |

The following courses must also be included if the student did not have them as an undergraduate:

- A. 521, The History of the English Language 5
 B. 550, The Criticism and Appreciation of Literature 5

In fulfilling the thesis requirements for a master's degree in English, a student may select any one of the following three options:

- (1) One long thesis on a topic demanding research, criticism, or both;
- (2) Three long papers written in three different areas of English or American language or literature and on topics demanding research, criticism, or both;
- (3) Two long papers written in two different areas of English or American language or literature and on topics demanding research, criticism, or both; and one long paper in the area of imaginative writing.

The work done under any of the above three options is under the direction of the student's advisory committee and must fulfill all of the requirements of form, date of submission, and binding that apply to regular master's theses.

For the graduate student who wishes to enter the Program for Writers, the department stipulates that four hours of "B" grade or better in the series of English 318, 319, and 320, or the equivalent directed experience in writing, be regarded as prerequisite for application to use imaginative writing as part of option (3) listed above. With this application, he must forward to the Graduate Committee in English samples of his best writing in order that the committee may determine whether he is qualified to use imaginative writing as part of his thesis requirement.

General Education

A student filling his general education requirement in literature under the humanities and aesthetics requirement may take any literature course for which he has the proper background. See also Humanities 101.

Remedial Courses

10. **Preparatory English.** (0:3:0) A.W.S. Craig, Staff
 Drill in essentials of English for all students not prepared for English 110 or 111. Students who complete course must pass placement test before registering for English 111. (Fee \$10.00)
15. **Remedial English for Juniors.** (0:2:0) A.W.S. (Fee \$15.00) Monson, Staff
20. **Remedial Reading.** (0:5:0) A.W.S. M. Clark, Olson
 Non-credit service course utilizing modern clinical methods in developing reading speed and comprehension.
99. **Problems in Thesis Writing.** (0:2:0) A.W. Staff
- 105, 106, 107. **English for Foreigners.** (3:5:0 ea.) A.W.S. Staff
 Service course for foreign students who are learning English. (This course may not be used to apply to an English minor, nor does it satisfy the freshman English requirement.)

Freshman Composition Courses

(These courses may not apply to the English minor.)

110. **Composition and Reading.** (3:5:0) A.W. Craig, Staff
 Same course and credit as English 111, but meets two additional days a week. For students who need additional help in freshman composition.

- 111, 112, 113. Composition and Reading.** (3:3:0 ea.) A.W.S. Home Study also. Craig, Staff

Course in reading and writing designed for development of skills of effective writing, of critical awareness, of resources of the language, and of skill in reading rapidly and critically. Review of grammar, readings, weekly themes, and long library paper.

- 115, 116. Composition and Reading.** (3:3:0 ea.) A.W.S. Craig, Staff
Alternate course to English 111, 112, 113 designed for students who show superior ability and training in composition. Students who receive a grade of "B" or lower in English 116 will be required to take English 215 to complete the general education requirement for freshman composition.

Lower Division Courses

- 215. Expository Writing.** (3:3:0) A.W.S. Prerequisites: English 111, 112, 113 or 115, 116. Hart, Staff
Basic composition course intended to develop clarity, precision, and style in factual writing.
- 216. Technical Writing.** (3:3:0) A.W.S. Prerequisites: English 111, 112, 113, or 115, 116. Bailey, Staff
Composition course intended to develop accuracy and skill in writing and documenting library or laboratory research reports.
- 218. Imaginative Writing.** (3:3:0) A.W.S. Home Study also. Prerequisites: English 111, 112, 113, or 115, 116. Larson, Staff
Composition course intended to develop expressive skill and power through writing of short stories, poems, dramas, and/or informal essays.
- 221. English Grammar.** (5:5:0) A.W.S. Home Study also. Prerequisites: English 111, 112, 113, or 115, 116. Young, Staff
- 225. Vocabulary Building.** (3:3:0) A.W.S. Home Study also. Young, Staff
Service course intended to develop an effective vocabulary through assiduous study of prefixes, suffixes, and roots.
- 226. Semantics.** (3:3:0) A. Thomas, McKendrick
Study of function of words in written and spoken communication.
- 241. Masters of the Drama, Ancient to Modern.** (3:3:0) A. (G-HA) Craig
Origin of the drama with emphasis on Greek and Roman dramatists.
- 242. Masters of the Drama, Ancient to Modern.** (3:3:0) W. (G-HA) Craig
Medieval, Renaissance, and early modern drama, both continental and English.
- 243. Masters of the Drama, Ancient to Modern.** (3:3:0) S. (G-HA) Craig
Modern drama—continental, English, and American—stressing its national character and the influence of earlier drama on the modern.
- 250. Introduction to Literature.** (4:4:0) A.W.S. Home Study also. (G-HA) Farnsworth, Staff
Study of various types of literature—short story and novel, poetry, essay, biography, and drama—with a critical reading and analysis of significant examples of each type.
- 251. Fundamentals of English for Majors and Minors.** (5:5:0) A.W.S. Home Study also. Prerequisites: English 111, 112, 113, or 115, 116. Required of all English majors and minors. B. Clark, Staff
Basic course in literary appreciation and criticism, literary terminology, and writing. Should be taken in the sophomore year.
- 252. Introduction to Poetry.** (3:3:0) A.W.S. (G-HA) Hart, Larson, Evans
Appreciation course in poetry, emphasizing critical reading and analysis of significant poems of various types.

- 253. Introduction to Drama.** (3:3:0) A.W.S. (G-HA) Monson, Tanner, Waterstradt
Appreciation course in drama, with attention given to various forms—tragedy, comedy, farce, melodrama, and modern problem play—and with a critical reading of famous examples of each type.
- 254. Introduction to Biography.** (3:3:0) W. (G-HA) Young
Study of short biographies of some famous statesmen, patriots, adventurers, scientists, inventors, painters, writers, and others, including Hitler, Napoleon III, George III, Edison, Wilson, Jefferson, Lincoln, John Brown, Goethe, Gauguin, the Curies, and Dolly Madison.
- 256x. Classic Myths.** (4) Home Study only. (G-HA) Carroll
This course is planned to acquaint the student with the great characters and stories in classical mythology and to study their relationship to literature and their bearing upon other parts of modern culture and life.
- 261. Masterpieces of American Literature.** (2:2:0) A. Home Study also. (G-HA) Thomson, Staff
Selected readings in American literature from colonial times to Emerson, with emphasis on Franklin, Poe, Hawthorne, and Emerson.
- 262. Masterpieces of American Literature.** (2:2:0) W. Home Study also. (G-HA) Thomson, Staff
Selected readings in American literature from Thoreau to Mark Twain, with emphasis on Thoreau, Melville, Whitman, and Mark Twain.
- 263. Masterpieces of American Literature.** (2:2:0) S. Home Study also. (G-HA) Thomson, Staff
Selected readings in American literature from about 1890 to the present.
- 271. Masterpieces of English Literature.** (2:2:0) A. Home Study also. (G-HA) Tanner, Staff
Selected readings in medieval and renaissance English literature, including selections from folk epic, Beowulf, Chaucer's Canterbury Tales, Middle English folk ballads, and Shakespeare's plays and sonnets.
- 272. Masterpieces of English Literature.** (2:2:0) W. Home Study also. (G-HA) Tanner, Staff
Selected readings in 17th and 18th century English literature, including selections from 17th century lyrics and from works of Milton, Dryden, Pope, Swift, Gray, Blake, and Burns.
- 273. Masterpieces of English Literature.** (2:2:0) S. Home Study also (G-HA) Tanner, Staff
Selected readings in 19th and 20th century English literature, including selections from great novels of these centuries and from the works of Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Hardy, Yeats, and Eliot.
- 282. Shakespeare.** (3:3:0) A.W.S. Home Study also. (G-HA) Young, Staff
Appreciation course in Shakespeare, with an interpretive reading of eight of his great dramas.

Upper Division Courses

- 318, 319, 320. Advanced Imaginative Writing.** (2:2:0 ea.) A.W.S. 318 Home Study also. Prerequisite: English 218 or special permission of the instructor or the department chairman. Larson, Staff
Composition course intended to give experienced student writers opportunity to further develop their skills in writing poetry, fiction, and drama.
- 331. The English Novel to 1832.** (3:3:0) W. Home Study also. (G-HA) Rice, B. Clark
English prose fiction to beginning of Victorian period, with emphasis on Defoe, Richardson, Fielding, Smollett, Sterne, Scott, and Austen.

332. **The English Novel from Dickens to Hardy.** (3:3:0) A. Home Study also. (G-HA) B. Clark
English novel from 1832 to 1900, with emphasis on Dickens, Thackeray, Trollope, the Brontes, George Eliot, and Hardy.
333. **The Modern English Novel.** (3:3:0) S. Home Study also. (G-HA) B. Clark
English novel from 1890 to the present, with emphasis on Hardy, Conrad, Bennett, Galsworthy, Lawrence, Maugham, Joyce, Woolf, and several contemporary novelists.
335. **The American Novel to Dreiser.** (3:3:0) A. Home Study also. (G-HA) Jacobs, Olson
Nineteenth century American novelists, with emphasis on Cooper, Hawthorne, Melville, Twain, Howells, and James.
336. **The Modern American Novel.** (3:3:0) W. Home Study also. (G-HA) Jacobs
Twentieth century American novelists, with emphasis on Dreiser, Cather, Lewis, Hemingway, Faulkner, Steinbeck, Wolfe, and Fitzgerald.
345. **The Spirit of Tragedy in Literature.** (4:4:0) W. (G-HA) Christensen
Study of tragedy as experienced in drama from the Greeks to the present time.
- 346x. **Greek Life and Drama.** (3) Home Study only. (G-HA) Carroll
Ancient Greek mythology and civilization and some of the dramas by Aeschylus, Sophocles, Euripides, and Aristophanes.
350. **The Bible as Literature.** (3:3:0) A.W.S. Home Study also. (G-HA; G-R) Thomas, Staff
356. **World Classics.** (3:3:0) A. (G-HA) Britsch, Staff
Greek and Roman epic and tragedy, with emphasis on works of Homer, Aeschylus, Sophocles, Euripides, and Aristophanes.
357. **World Classics.** (3:3:0) W. (G-HA) Britsch, Staff
European classics of the Middle Ages and Renaissance, emphasizing Dante's Divine Comedy in modern translation.
358. **World Classics.** (3:3:0) S. (G-HA) Britsch, Staff
European masterpieces of the modern era, with emphasis on works of Goethe, Schiller, Voltaire, Balzac, Flaubert, Pushkin, Turgenev, Tolstoy, and Ibsen, in translation.
359. **The Short Story.** (3:3:0) A.S. Home Study also. (G-HA) Cheney, B. Clark
Critical study of selected great short stories—American, English, and European—with emphasis on 20th century stories.
361. **Early American Literature.** (5:5:0) A. (G-HA) Jacobs, Thomas, Thomson
American literature from beginning to Civil War, with emphasis on Colonial Puritanism, the Enlightenment, Nationalism and Romanticism. (Does not include authors studied in English 362.)
362. **American Renaissance.** (5:5:0) A.W.S. (G-HA) Jacobs, Staff
Readings in major figures of the American Renaissance: Emerson, Hawthorne, Thoreau, Whitman, and Melville.
363. **Later American Literature.** (5:5:0) W.S. (G-HA) M. Clark, Jacobs, Thomas, Thomson
American literature from Civil War to present, with emphasis on Realism, Local Color and Naturalism.
366. **Modern Poetry.** (3:3:0) A.S. Home Study also. (G-HA) Hart, Larson
Major English and American poets of the 20th century.
367. **English and American Folk Poetry.** (3:3:0) S. (G-HA) Cheney
English and Scottish ballads and American folk songs.

- 371. English Literature to 1500: the Medieval Period.** (5:5:0) A. (G-HA) Christensen
English literature from beginnings to 1500, with emphasis on its relationship to other European literatures.
- 372. English Literature from 1500 to 1660: the Renaissance Period.** (5:5:0) W. (G-HA) Young
English dramatic and non-dramatic poetry and English prose of Renaissance period, including Milton but excluding Shakespeare.
- 373. English Literature from 1660 to 1780: the Neo-Classical Period.** (5:5:0) S. (G-HA) Hart, Monson, Rice
English literature from Restoration through Augustan Age of Reason to beginnings of Romanticism, including works of Dryden, Defoe, Swift, Fielding, Pope, and Johnson.
- 374. English Literature from 1780 to 1832: the Romantic Period.** (5:5:0) A. W. Home Study also. (G-HA) Tanner, Cheney, B. Clark
English literature of Age of Romanticism, including works of Blake, Wordsworth, Coleridge, Scott, Lamb, Byron, Shelley, and Keats.
- 375. English Literature from 1832 to 1900: the Victorian Period.** (5:5:0) W.S. (G-HA) Britsch, B. Clark, Farnsworth, Hart
English literature of middle and later 19th century, including works of Carlyle, Ruskin, Dickens, Browning, Tennyson, Arnold, the Rossettis, Morris, Swinburne, Meredith, and Hardy.
- 376. Twentieth Century English Literature.** (3:3:0) S. (G-HA) B. Clark, Hart, Larson
Major English poets, dramatists, and fiction writers of our century.
- 382. Shakespeare.** (5:5:0) A.W.S. (G-HA) Christensen
- 385x. Tennyson.** (3) Home Study only. (G-HA) Carroll
The chief writings of Tennyson are studied, along with background and critical materials.
- 386x. Browning.** (3) Home Study only. (G-HA) Carroll
Browning's chief poems are studied, along with the influences of the poet's time and critical writings concerning them.
- 400-409. Eminent American Writers.** (2:2:0 ea.) A.W.S. (G-HA) M. Clark, Staff
Different writers are treated each year in this series.
- 410-419. Eminent English Writers.** (2:2:0 ea.) A.W.S. (G-HA) McKendrick, Staff
Different writers are treated each year in this series.
- 476x. Victorian Poetry.** (3) Home Study only. (G-HA) Carroll
A study of the poetry of the major writers of the Victorian Period, such as Browning, Tennyson, Arnold, Swinburne, etc.
- 477x. Victorian Prose.** (3) Home Study only. (G-HA) Carroll
The writings of outstanding essayists, novelists, and dramatists of the Victorian Period are considered.
- 481. Chaucer.** (4:4:0) W. (G-HA) Christensen
- 483. Milton.** (3:3:0) A. (G-HA) Christensen
- 487. Matthew Arnold.** (3:3:0) S. (G-HA) Christensen
- 490. Senior Seminar for English Majors.** (2:2:0) A.W.S. Staff

- 495, 496, 497. Individual Readings.** (1-6:2-12:0 ea.) A.W.S. Staff
Available only to English majors and students on foreign tours. English majors in residence will be limited to a maximum cumulative total of 3 credit hours, students on tour to a maximum total of 6 credit hours.

Advanced Undergraduate or Graduate Courses

- 521. History of the English Language.** (5:5:0) S. Christensen
Course descriptive of the English language in various stages of its development, with background of related historical events.
- 525. Old English.** (5:5:0) A. Young
Approval of instructor required for registration of an undergraduate.
- 526. Middle English.** (3:3:0) S. Christensen, Monson
Approval of instructor required for registration of an undergraduate.
- 541. English Drama to 1642.** (3:3:0) A. (G-HA) Young
Religious drama of the Middle Ages, court plays, and popular drama of the Renaissance, excluding Shakespeare.
- 542. Restoration and Eighteenth Century Drama.** (3:3:0) W. (G-HA) Rice
English drama from 1660 to 1800, with emphasis on high comedy, sentimental comedy, and heroic tragedy.
- 543. Modern English and American Drama.** (3:3:0) S. (G-HA) Tanner
Major English and American dramatists since 1890.
- 550. The Criticism and Appreciation of Literature.** (5:5:0) A. (G-HA) Hart, Thomas
Study of critical theories and standards of value.
- 552. The Renaissance in European Literature.** (5:5:0) A. (G-HA) Spears
Major writers of European Renaissance, including Montaigne, Boccaccio, Ariosto, Shakespeare, and Cervantes.
- 553. Neo-Classicism in European Literature.** (5:5:0) W. (G-HA) Spears
Major writers of 17th and 18th centuries in Europe, including Moliere, Voltaire, Dryden, Pope, Swift, Racine, Corneille, and Lessing.
- 554. Romanticism in European Literature.** (5:5:0) S. (G-HA) Spears
Major writers of Romantic Age in Europe, including Goethe, Rousseau, Wordsworth, Shelley, Keats, Hugo, and Madame de Stael.

English Education

- 377. Secondary Teaching Procedures.** (3-4:3:3) Prerequisites: Instruction 301 or E.R.S. 305 or equivalent. West
For course description and fee see Instruction 377.
- 478. Unit Planning and Teaching.** (4:3:5) A.W.S. Prerequisite: Instruction 377 or English Education 377. West
For course description and fee see Instruction 478.
- 479. Secondary Student Teaching.** (7-12:2:20-35) A.W.S. Prerequisite: English Education 377 or 478. West
For course description and fee see Instruction 479.
- 669. Teaching English in Secondary Schools.** (3:3:0) S. West

Graduate Courses

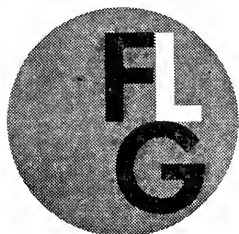
- 615. Bibliography and Methods of Research.** (2:2:0) A. Larson
- 625. Beowulf.** (3:3:0) W. McKendrick
- 631. The English Novel.** (3:3:0) A. B. Clark

- | | |
|--|-------------------------|
| 635. The American Novel. (3:3:0) W. | Smart |
| 641. The English Drama. (3:3:0) S. | Craig |
| 661. Colonialism and Puritanism in American Literature. (3:3:0) S. | Jacobs |
| 662. Romanticism in American Literature. (3:3:0) A. | Thomas |
| 663. Transcendentalism in American Literature. (3:3:0) W. | Jacobs, Thomas, Thomson |
| 664. Realism and Naturalism in American Literature. (3:3:0) S. | Jacobs, Thomas, Thomson |
| 671. The Medieval Period in English Literature. (3:3:0) A. | Christensen |
| 672. The Renaissance in English Literature. (3:3:0) W. | Larson, Young |
| 673. Neo-Classicism in English Literature. (3:3:0) W. | Hart, Rice |
| 674. Romanticism in English Literature. (3:3:0) A. | B. Clark |
| 675. The Victorian Age in English Literature. (3:3:0) S. | Farnsworth |
| 682. Shakespeare. (3:3:0) S. | Hart |
| 695. Individual Readings in English. (1-3:2-6:0) A.W.S. | Staff |
| 699. Thesis for Master's Degree. (Arr.) A.W.S. | Staff |

Family Living, General

Virginia Poulson, in charge (2218 SFLC).

(An interdepartmental area only.)



A non-departmental composite major-minor is offered in the broad field of Family Living. Completion of a minimum of 60 hours of course work distributed among five departments in the College is required. This is in addition to the university requirements and the out-of-college courses that are also to be completed by all students who wish to graduate from the college. Students who are uncertain as to their specific interest often begin work in the general field, but by the end of their freshman year they may select a major in one of the departments in the college: Clothing and Textiles, Economics and Management of the Home, Food and Nutrition, Homemaking Education, Housing and Design, or Human Development and Family Relationships.

Students in the Family Living, General, program may prepare themselves for jobs in the field of retailing or of writing, related to family living. Before deciding to remain in the program, students should have in mind specific jobs in which they are interested, and they should check carefully with their advisers to be certain that jobs are available in the field and in the section of the country in which they wish to live. As is true for the majors in the departments of the college, the successful completion of appropriate courses in this program should prepare a student to assume the responsibilities of marriage and also earn a living in a field related to family living. An undirected, non-specialized program, however, may **not** prepare one to earn a living.

Suggested Program

Freshman Year				Sophomore Year			
	A	W	S		A	W	S
Religion	2	2	2	Religion	2	2	2
English (determined by placement test)	3	3	3	Clothing and Textiles 225, 260	3	3	
Physical Education	1	1	1	Nursing 288		2	
Health 130			2	Psychology 111	5		
Food and Nutrition 110	4			H.D.F.R. 210, 211		4	
Chemistry 101, 102	5	4		H.D.F.R. 160	2		
Clothing and Textiles 110, 115		2	3	Housing and Design 120, 135	2	3	
Art 110			2	Economics and Management of the Home 130			3
Physics 104			3	Food and Nutrition 255, 256, 264, 265		4	5
Bacteriology 121		4		Zoology 105 or 164	5		
Family Living 101	1			Economics 101			5
Total Hours	16	16	16	Total Hours	17	17	18

Lower Division Course

- 101. Orientation to Family Living.** (1:2:0) A. Recommended for all freshmen majoring in the College of Family Living. Staff

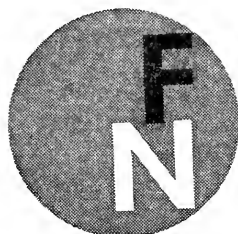
Information needed to assist the student to plan for herself while in college; the scope of family living (home economics); educational, cultural, religious and social opportunities, and library facilities on campus; investigation of and planning for a vocation in family living.

Food and Nutrition

Professors: S. Morris, Trunnel.

Associate Professor: M. Bennion (chairman, 2218B SF LC).

Instructors: Brasher, M. Bryner, Ream, So-vine.



The Department of Food and Nutrition is organized to help the student understand the basic principles which underlie (1) the role played by food in the maintenance of optimum health and (2) the preparation of food of high culinary and nutritive quality. Application of the basic principles of nutrition is made through the planning, preparation, serving, and evaluation of attractive and nourishing family meals and through the preparation and evaluation of single items under experimentally controlled conditions. The economics of buying and the wise management of time and energy are emphasized.

Courses in this department provide background for training in such professional fields as hospital dietetics, public health nutrition, school lunch or restaurant administration, test kitchen work, food demonstration, and research.

For majors in food and nutrition a minimum of 30 credit hours in the department is required. For graduation from the College of Family Living these hours must be combined with enough credits in the college to total 60 hours. Majors should include the following in their programs:

	Hours
Clothing and Textiles	4
Economics and Management of the Home	3
Housing and Design	3
Human Development and Family Relationships	6

Suggested Program for Majors

Freshman Year

	Hours
Religion	6
English (determined by placement test)	9
Physical Educ. and Health	5
Art 110	2
Chemistry 101, 104	10
Bacteriology 121	4
Psychology 111	5
Family Living 101	1
Food and Nutrition 110	4
Clothing and Textiles	2-3

Sophomore Year

	Hours
Religion	6
Chemistry 102, 284	10
Physics 104	3
Zoology 105, 164	10
Economics 101 or Agr. Econ. 101	5
Humanities and Aesthetics	7
Human Dev. and Family Rel.	3-4
Food and Nutrition 264, 265	5
Electives	3-4

Junior Year

Hours

Religion	6
History 170 or 180	5
Humanities and Aesthetics	3
Econ. and Mgt. of the Home	3
Housing and Design	3
Family Living (courses toward 60 credit-hour requirement)...	6-8
Food and Nutr. 335, 336, 340	12
Food and Nutrition (courses toward major)	2-3
Electives (selected from list following or others)	6-8

Senior Year

Hours

Religion	6
Humanities and Aesthetics	3
Clothing and Textiles	2
Human Dev. and Family Rel.	3
Food and Nutrition 564, 590	6
Food and Nutrition (courses toward major)	10-12
Electives (selected from list following or others)	15

Suggested list: Food and Nutrition 210, 330, 345*, 455*, 470*, 472*, 474*, 535, 560, 562, 594, 595. Students preparing for a dietetic internship must elect Food and Nutrition courses marked (*); Accounting 101; Chemistry 284; Homemaking Education 381, 382; sociology or additional psychology or economics, 4 hours.

For positions in hospital dietetics, a postgraduate internship is required. Certain centers have been approved by the American Dietetic Association to give internships and training. A list of these centers, as printed by the American Dietetic Association, is available in the office of the department chairman. These courses are ordinarily twelve months in length.

Students preparing for positions in business should elect Educational Research and Services 304, Instruction 406, Homemaking Education 381 and 382, Journalism 101 (G-HA) and Speech 101 or 102.

The courses in this department are planned to be of value to both men and women.

Courses in other departments that might be of interest to students in food and nutrition are Bacteriology 361, Chemistry 220, Horticulture 112, Journalism 101, 211, 571, and Business Management 347.

Lower Division Courses

- 110. Introductory Food and Nutrition.** (4:2:4) A.W.S. Home Study also. Open to all students. Staff

Designed to develop an understanding of food in relation to health. Accepted techniques of food preparation for maximum retention of nutritive value are taught through laboratory experiences.

- 115. Essentials of Nutrition.** (3:3:0) A.W.S. Home Study also. For non-majors in the College of Family Living. Majors should elect Food and Nutrition 110 instead. Staff

Basic concepts of human nutrition and their application in achievement and maintenance of optimum health.

- 210. Food Preparation.** (3:1:4) W. Prerequisite: Food and Nutrition 110. Ream
Different ways of preparing and using a wide variety of foods. Preparation of some foreign dishes.

- 235. Meal Planning and Serving.** (4:2:4) S. Prerequisite: Food and Nutrition 110. Majors in food and nutrition and students planning to teach homemaking should register for Food and Nutrition 340. Fee \$3.00. Bryner

A study of problems involved in planning and serving family meals with emphasis on wise buying of food supplies. Experience with various types of meal service on different income levels.

- 245. Nutrition of Mother and Child.** (3:3:0) A. Open to all students. Morris
The nutritional needs of expectant mothers, infants, and children and the proper choice of food to meet these needs.
- 255. Fundamentals of Nutrition.** (3:3:0) A.S. Prerequisites: Food and Nutrition 110, Zoology 105 or 164, and Chemistry 102. For non-majors. Majors should elect Food and Nutrition 335. Morris
Basic concepts of human nutrition at all ages. Achievement and maintenance of optimum health for all family members. Relation of cost to nutritive value.
- 256. Fundamentals of Nutrition, Laboratory.** (1:0:2) A.S. To be taken concurrently with Food and Nutrition 255. For non-majors. Majors should elect Food and Nutrition 335. Morris
Experiences involving a study of food portions, their cost, and their value in supplying body needs.
- 264. Introduction to Experimental Cookery.** (3:3:0) A.W.S. Prerequisites: Food and Nutrition 110 and Chemistry 102. To be taken concurrently with Food and Nutrition 265. Bennion
How and whys of food preparation. An understanding of the purpose of ingredients and the procedures used in the preparation of some common foods. Comparison of products prepared when kind or proportion of ingredients or method of manipulation is varied.
- 265. Introduction to Experimental Cookery, Laboratory.** (2:0:4) A.W.S. To be taken concurrently with Food and Nutrition 264. Staff

Upper Division Courses

- 330. Food Preservation.** (2:2:2) A. Prerequisites: Chemistry 102, Bacteriology 121, and Food and Nutrition 264. Staff
Underlying theory of and practice in the preservation of different types of food by a variety of methods, including canning, freezing, jelly-making and pickling.
- 335, 336. Nutrition.** (4:3:2 ea.) A.W. Prerequisites: Food and Nutrition 110, Zoology 105 or 164, and Chemistry 284 or equivalent. Morris
A study of the essential nutrients and their functions in nutrition; how to determine and satisfy the food needs of the normal individual.
- 340. Meal Management.** (4:2:4) A.W.S. Prerequisites: Economics 101, Food and Nutrition 255 or 335, and 264. Recommended prerequisite: Economics and Management of the Home 330. Fee \$3.00. Bryner
Experience in selection of food for nutritionally adequate family meals. Budgeting of the food dollar in families of different income levels. Organization and management of time and energy in planning and preparation of meals. Experience in use of various types of service and entertaining.
- 345. Nutrition of Mother and Child.** (3:3:0) W. Prerequisite: Food and Nutrition 255 or 335. Morris
Application of principles of nutrition to feeding of expectant mothers, infants, and children.
- 370. Food Management for Large Groups.** (2:2:2) A. Open to all students. Prerequisite: Food and Nutrition 110 or equivalent. Sovine
Designed to give assistance in planning and to give some practical experience in preparation of food for community groups. Emphasis on organization and management and adaptation to available facilities. Of particular interest to members or potential members of Church and civic committees and to prospective teachers.

- 455. Nutrition in Disease.** (3:2:2) S. Prerequisite: Food and Nutrition 336. Morris
The role of good nutrition in times of stress and special need and as a therapeutic aid in treatment of disease.
- 470. Quantity Food Preparation.** (5:3:6) A. Prerequisites: Food and Nutrition 264 and 340. Sovine
Practical experience in menu planning and food preparation for large groups. Use, operation, and maintenance of equipment.
- 472. Food Management in Institutions.** (4:3:3) W. Prerequisite: Food and Nutrition 470. Sovine
Administrative problems of food-service operation. Management of financial and personnel problems, planning of institution kitchens, and selection of equipment. Field trips, observations, and practical experience to be arranged.
- 474. Food Purchasing for Institutions.** (2:2:0) W. Prerequisite or concurrent registration: Food and Nutrition 470 and 472. Sovine
Procedures involved in selection and purchase of food products for institutional use.

Advanced Undergraduate or Graduate Courses

- 535. Advanced Human Nutrition.** (3:3:0) Arr. Prerequisite: Food and Nutrition 336 or equivalent. Morris
An advanced study of the principles of human nutrition.
- 564. Experimental Cookery.** (4:2:4) W. Prerequisites: Food and Nutrition 264 and Chemistry 284. Bennion
An advanced study of the structure of food and the chemical and physical changes occurring during processing and preparation.
- 566. Chemistry Applied to Food.** (2:2:0) W. Prerequisite: Chemistry 101. College of Family Living students: Food and Nutrition 264 also. Offered 1960 and alternate years. Bennion
An understanding of quality in prepared food such as biscuits, muffins, other quick breads, candies, some frozen desserts, vegetables, and canned products. Practices followed in preparation are related to physiochemical properties of gases, liquids, solids, solutions; pH, hydrogen-ion concentration, and titratable acidity; and to chemical reactions involved.
- 568. Chemistry Applied to Food.** (2:2:0) S. Prerequisite: Chemistry 103 or 284. College of Family Living students: Food and Nutrition 264 also. Offered 1960 and alternate years. Staff
An understanding of quality in prepared food such as meat, fish, eggs and egg products, cheese dishes, gelatin dishes, bread, cake, and pastry. Composition of food and practices followed in its preparation are related to its colloidal nature and to chemical and bio-chemical reactions involved.
- 590. Readings in Food and Nutrition.** (2:2:0) S. Prerequisite or concurrent: Food and Nutrition 564 and 336 or consent of instructor. Staff
- 594. Special Problems in Food.** (1-3:0:3-9) W.S. Prerequisite: permission of instructor and chairman of department. Designed for students who have completed at least 15 hours in food and nutrition including Food and Nutrition 590. Staff
Independent study of a special problem in food under direction of an instructor.

595. **Special Problems in Nutrition.** (1-3:0:3-9) W.S. Prerequisite: permission of instructor and chairman of department. Designed for students who have completed at least 15 hours in food and nutrition including Food and Nutrition 590. Staff

Independent study of a special problem in nutrition under direction of an instructor.

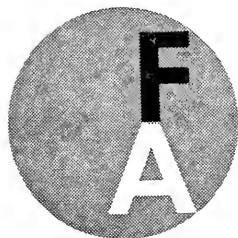
Graduate Courses

622. **Recent Advances in Foods.** (2:2:0) Arr. Prerequisite: Food and Nutrition 564 or its equivalent. Bennion
625. **Recent Advances in Nutrition.** (2:2:0) Arr. Prerequisite: Food and Nutrition 564 or its equivalent. Bennion
630. **Advanced Child Nutrition.** (3:3:0) Arr. Prerequisites: Food and Nutrition 336 and 345 or equivalent. Morris
644. **Science and Experimental Foods.** (3:2:2) Arr. Prerequisite: Food and Nutrition 564. Bennion
Protein foods; simple colloidal systems: gels, emulsions, and foams.
646. **Science and Experimental Foods.** (3:2:2) Arr. Prerequisite: Food and Nutrition 564. Bennion
Batters, doughs, and starch-thickened products.
648. **Science and Experimental Foods.** (3:2:2) Arr. Prerequisite: Food and Nutrition 564. Staff
684. **Methods of Research in Nutrition.** (2-3:1-2:4-6) Arr. Prerequisite: Food and Nutrition 535. Staff
685. **Methods of Research in Food.** (2-3:1-2:4-6) Arr. Prerequisites: two of the following: Food and Nutrition 644, 646, 648. Staff
694. **Independent Project in Food and Nutrition.** (1-4:0:3-12) A.W.S.Su. Prerequisite: Food and Nutrition 684 or 685. Staff
696. **Graduate Seminar in Food.** (1-2:2-4:0) Arr. Staff
697. **Graduate Seminar in Nutrition.** (1-2:2-4:0) Arr. Staff
698. **Field Project.** (Arr.) Arr. Staff
699. **Thesis for Master's Degree.** (Arr.) Arr. Staff

Herald R. Clark (in charge).

(An inter-departmental area only)

Forum Assemblies



In 1958 Brigham Young University inaugurated a weekly series known as Forum Assemblies. Purpose of the assemblies is to bring to our campus men and women of recognized pre-eminence in their chosen fields and to hear their stimulating messages. Among those appearing in 1958-59 were Vice President Richard Nixon, Carl Sandburg, Norman Cousins, and others of similar stature.

One-third hour credit per quarter or one hour per year may be earned by registering for and attending a minimum of seven forums each quarter. Attendance is based on the honor system. Forum Assembly credit may be carried above the normal class load. Grading, on a "pass" basis, will have no effect on grade-point average. Students must register for Forum Assemblies on the basis of their standing as freshmen, sophomores, juniors, or seniors. All students are encouraged to attend these provocative, intellectually rewarding assemblies.

Lower Division Courses

101, 102, 103. Lectures in Contemporary Civilization. ($\frac{1}{3}$:1:0 ea.) A.W.S.

Forum Lecturers

Open to freshmen students only. In order to obtain credit for this course, students must complete all three quarters.

201, 202, 203. Lectures in Contemporary Civilization. ($\frac{1}{3}$:1:0 ea.) A.W.S.

Forum Lecturers

Open to sophomore students only. In order to obtain credit for this course, students must complete all three quarters.

Upper Division Courses

301, 302, 303. Lectures in Contemporary Civilization. ($\frac{1}{3}$:1:0 ea.) A.W.S.

Forum Lecturers

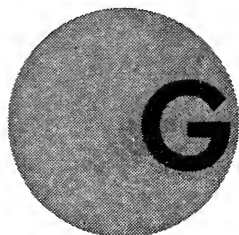
Open to junior students only. In order to obtain credit for this course, students must complete all three quarters.

401, 402, 403. Lectures in Contemporary Civilization. ($\frac{1}{3}$:1:0 ea.) A.W.S.

Forum Lecturers

Open to senior students only. In order to obtain credit for this course, students must complete all three quarters.

Geography



The Department of Geography serves three classes of students: (1) professional major students, (2) non-professional major students who wish to build a broad cultural education around a central interest in geography, (3) students majoring in other fields who wish some acquaintance with the contribution of geography to the understanding of the world and its problems.

For majors, the department provides background for work in the following general fields of specialization: area analysis, cartography, teaching.

The following courses in geography are required for a major:

Lower Division. Geography 105, 223, 275. Geology 101 and 102 or 111.

Upper Division. Geography 310, 401, 570, 598; at least two of the following regional courses: 420, 430, 440, 450, 460; at least two of the following systematic courses: 560, 565, 584; and electives in geography to make a total of 45 hours.

Lower Division Courses

105. **Introduction to Geography.** (5:5:0) A.W.S. Home Study also. (G-SS) Tuttle
 General survey of man's use of his natural environment including a study of landforms, climates, soil, natural resources.
110. **Geography in World Affairs.** (5:5:0) A.W.S. Home Study also. (G-SS) Staff
 Introduction to world geography emphasizing regions, resources, and economic activities of major political areas of the world.
121. **Geography of Utah.** (3:3:0) W. Layton
 Detailed regional study of the state, with special emphasis on cultural and economic relationships of Utah to the nation.
223. **Economic Geography.** (5:5:0) A.W.S. Home Study also. (G-SS) Layton
 Brief survey of the world's resource pattern. Origin, importance and movement of major commodities in world affairs.
275. **Map Reading.** (3:2:2) A. Layton
 Maps as tools for teaching and research. Sources of maps and interpretation of map data.

Upper Division Courses

303. **Map Drawing.** (3:1:4) W. Layton
 Maps as a means of recording information. Methods of illustrating various

types of data and preparation of maps for reproduction and publications.

- 305. Physiography of North America.** (3:3:0) W. Prerequisite: consent of instructor. Staff
Study of characteristics of landforms of the continent.
- 310. Geography of North America.** (5:5:0) A.S. Home Study also. (G-SS) Tuttle
Geography of the United States, Alaska, and Canada, including study of climates, landforms, natural resources, agriculture, and industries.
- 360. World Mineral Resources.** (2:2:0) S. Home Study also. Layton
Geography of reserves, production, and uses of the world's important metallic and non-metallic minerals.
- 401. Geography of Climates.** (3:3:0) W. Prerequisite: consent of instructor. Tuttle
Study of climate, one of the most important of all geographic factors, including climatic elements, controls, distribution and classification.
- 420. Latin America.** (5:5:0) A. Home Study also. Layton
Physical and cultural landscapes of geographic regions of South and Central America.
- 430. Europe.** (5:5:0) W. Home Study also. (G-SS) Staff
Study of the land and how man is utilizing natural and human resources of Europe. Emphasis on human geography of major political regions.
- 440. Asia.** (5:5:0) S. Prerequisite: consent of instructor. Tuttle
Geography of one-third of the earth and two-thirds of its people. Man's use of his natural environment on the world's largest continent.
- 450. Africa.** (5:5:0) S. Staff
Systematic regional treatment of physical, economic, political and cultural geography of Africa.
- 460. Australia and New Zealand.** (3:3:0) S. Staff
Physical and cultural geography of Australia, Tasmania and New Zealand.
- 490, 491, 492. Readings.** (1:1:0) A.W.S. For majors only. Staff
- 495. Special Problems.** (1-3:1-3:2-6) A.W.S. For majors only. Staff

Advanced Undergraduate or Graduate Courses

- 531. Western Europe and the Mediterranean.** (3:3:0) A. Prerequisite: Geography 430. Duke
- 532. Eastern Europe and the U.S.S.R.** (3:3:0) S. Prerequisite: Geography 430.
- 560. Industrial Geography.** (5:5:0) S. Prerequisite: Geography 223. Layton
- 565. Urban Geography.** (3:3:0) W. Layton
- 570. Geographic Field Techniques.** (3:1:4) S. Staff
- 580. Geography of Underdeveloped Areas.** (3:3:0) W. Prerequisite: consent of instructor. Staff
- 584. Political Geography.** (3:3:0) S. Prerequisite: consent of instructor. Duke
- 598. Seminar.** (1:1:0) A.W.S. Staff

Graduate Courses

605, 606, 607. Research. (1-2:1-2:0 ea.) A.W.S. For majors only.	Staff
611. United States. (3:3:0) W. Prerequisite: Geography 310.	Tuttle
621. South America. (3:3:0) W. Prerequisite: Geography 420.	Layton
622. Caribbean Area. (3:3:0) S. Prerequisite: Geography 420.	Layton
641. Orient. (3:3:0) S. Prerequisite: Geography 440.	Tuttle
690, 691, 692. Readings. (1:1:0 ea.) A.W.S. For majors only.	Staff
695. Special Problems. (1-3:1-3:2-6) A.W.S. For majors only.	Staff
698. Graduate Seminar. (1:1:0) A.W.S.	Staff
699. Thesis for Master's Degree. (Arr.)	Staff

These courses also count in Geography:

Political Science 580. Foundations of National Power (The Americas). (3:3:0).

Political Science 581. Foundations of National Power (Europe). (3:3:0)

Political Science 582. Foundations of National Power (Near and Middle East). (3:3:0).

Political Science 583. Foundations of National Power (Far East and Pacific). (3:3:0).

History 585. Historical Geography of the United States. (3:3:0).

Professors: Bullock (chairman, 291 ESC),
Bissell, G. H. Hansen.

**Associate
Professors:** Hintze, Rigby*.

**Assistant
Professors:** Bushman*, Phillips.

Instructor: Brimhall.

Curator: Owens.

Geology and Geological Engineering Science



It is expected that a student intending to major in geology shall have met the general entrance requirements of the College of Physical and Engineering Sciences. All students majoring in geology are required to complete the following courses (or their equivalents at another institution) to obtain the bachelor's degree: Geology 111, 112, 113, 251, 252, 253, 311, 312, 313, 410, 460, 470, and 480. No more than two of these required geology courses can be taken during any one quarter. Mathematics 111, 112, 231, Chemistry 111, 112, 113, and Physics 111, 112, 113 or 211, 212, 213 are required of all geology majors. Starred courses are recommended. The following courses are recommended to fulfill partially the group requirements: Botany 112, Zoology 105, History 170 or 180, Geography 223, and Archaeology 150.

Mathematics 232, 233, and 234 are required of all students majoring in geological engineering, geophysics, or geochemistry, and are strongly recommended for all geology majors. Requirements for students intending to teach in the elementary and secondary schools are listed under composite majors in mathematics and physical science under the College of Education.

The Department of Geology offers training for the master's degree and the degree of Doctor of Philosophy, with specialization in various fields of geology. The graduate student is urged to acquire a broad foundation in geology and to secure adequate training in field work before he concentrates on a chosen branch of the subject. To this end certain fundamental course work is recommended for all students. The course offerings are sufficiently varied and complete in order that all the students may select courses according to their needs and inclinations in consultation with their advisers.

It is expected that graduate students will meet all the general requirements for advanced degrees as outlined by the Graduate School. The responsibility of meeting these requirements rests with the students. Thesis work, intended to be investigative in character, must be of professional caliber. It is expected that the candidate for an advanced degree will make original contributions, develop new ideas, and complete a thesis or dissertation suitable for publication.

The graduate program of the Department of Geology offers instruction in three broad divisions of geology, with the following course offerings in each division: (1) economic geology and mineralogy—Geology 505, 520, 525, 540, 563, 621, 622, 640, 641, 645, 646, 651, 652, 653, 655, 656, 661, 662, 665; (2) stratigraphy, sedimentation, and paleontology—Geology 505, 575, 580, 581, 670, 672, 678, 680, 681, 682, 683, 684, 685, 686; and (3) structural, field, and dynamic geology—Geology 503, 505, 506, 511, 512, 530, 535, 610, 615, 617, 673.

A student may select any one of the three divisions for a major. He may elect one or both of the remaining divisions for his minor(s). Geology 505 is required

of all graduate students, but may apply toward their majors. Geology 696, 698, 699, and 799 are variable credit courses commensurate with work completed in each of these areas. A student should not register for Geology 699 or 799 until he has essentially completed his research and is prepared to write his thesis or dissertation.

Master's Degree. (For general requirements see Graduate School Catalog.) Requirements for a master's degree in geology include: (1) at least twenty-three hours of formal course work in the major field and at least fifteen hours of formal course work in one or two minor fields; (2) a general qualifying examination at the beginning of the graduate program; (3) a thesis embodying the results of research under a faculty member's supervision; and (4) a final comprehensive examination on the graduate course work and the research thesis.

Doctor of Philosophy Degree. (For general requirements see Graduate School Catalog.) Requirements for a Doctor of Philosophy degree in geology include: (1) a minimum of forty hours of formal course work in the major field and a minimum of twenty-five hours of formal course work in each of two minor fields (one of the minors may be in a related field outside of the Department of Geology in which upper division and graduate courses will be acceptable); (2) one degree or one year of acceptable graduate study at another institution; (3) a comprehensive examination after ninety hours of graduate work and at least one academic year prior to graduation; (4) a dissertation embodying the results of original research; and (5) defending his dissertation before a formally appointed committee at the close of his final year of study.

SUGGESTED CURRICULUM FOR GEOLOGY MAJORS

Freshman Year				Junior Year			
	A	W	S		A	W	S
Geology 111, 112, 113 or				Geology 311, 312, 313	5	4	3
Chemistry 111, 112, 113 ..	5	5	5	*Geology 305	3		
Mathematics 111, 112, 231 ..	5	5	5	Physics 111, 112, 113			
English 111, 112, 113	3	3	3	or 211, 212, 213	5	5	5
Phys. Ed. and Health	1	1	3	Religion	2	2	2
Religion	2	2	2	Group Requirements			
	16	16	18	and Electives	5	3-6	7
					17	17	17
Sophomore Year				Summer School			
	A	W	S				
Geology 111, 112, 113, or				Geology 410 (Geology			
Chemistry 111, 112, 113 ..	5	5	5	Summer Field Camp)	6	hours	
Geology 251, 252, 253	3	3	3				
*Mathematics 232, 233, 234 ..	5	5	5				
Religion	2	2	2				
Group requirements and							
Electives	3-8	3-8	3-8				
	18	18	18				
				Senior Year			
	A	W	S		A	W	S
				Geology 480, 470, 460	4	4	4
				*Geology 505, 450	2	4	
				Religion	2	2	2
				Electives (and group require-			
				ments not filled)	11	9	7
					17	17	17

SUGGESTED CURRICULUM OF GEOLOGICAL ENGINEERING

Freshman Year

(Same as all engineering students)

Sophomore Year

(Same as all engineering students)

Junior Year

	A	W	S
Geology 111, 112, 113	5	5	5
Geology 251, 252, 253	3	3	3
Civil Engineering 320	5		
Civil Eng. 201, 202, 203	5	5	5
Religion		4	2
Electives		1	3
	18	18	18

Senior Year

	A	W	S
Geology 311, 312, 313	5	4	3
Geology 480, 470, 460	4	4	4
Geology 540	4		
Elec. Eng. 301, 302, 303	4	4	4
Religion		4	2

Electives	1	2	5
	18	18	18

Summer School

Geology 410 (Geology Summer Field Camp)	6	hours
---	---	-------

Fifth Year

	A	W	S
Chemistry 221, 222, 214	5	5	5
Geology 645, 646, 450	3	3	3
Geology 530, 640, 641	3	4	4
Geology 520, 625, 661 or			
Geology 660, 661, 662	5-3	4-3	5-4
Electives	2-4	2-3	0-1
	18	18	18

*These courses are recommended.

Lower Division Courses

- 101. Introduction to Geology.** (3:3:0) A.W.S. Home Study also. (G-PS) Staff
A cultural non-technical course dealing with physical geology. Designed for the non-science student who desires a broad introduction to earth science and a greater appreciation of one's surroundings. Annual two-day field trip through central and southern Utah (Bryce and Zion Canyons) is sponsored each spring for all Geology 101 and 103 students of the year. May be taken with or without Geology 102.

- 102. Introduction to Geology Laboratory.** (1:0:2) A.W.S. (G-PS) Staff
Laboratory course (including a local field trip) in which common rock and ore-forming minerals, common rocks, and a few maps will be studied. Designed to accompany Geology 101, 110 and 111 and should not be taken separately.

- 103. Life of the Past.** (3:3:0) A.W.S. Home Study also. (G-PS) Rigby
Cultural non-technical course in historical geology. Designed for the non-science student who desires an understanding of life forms and general historical events of the geologic past. Annual field trip. See Geology 101.

- 110. Geology for Engineers.** (3:3:0) W.S. Hansen
Study of geologic principles which relate to engineering practice. Geology 102 is required to accompany this course. Designed for all engineering students except geological engineers.

- 111. Physical Geology.** (4:4:0) A.W. (G-PS) Brimhall
Comprehensive course covering the field of physical geology. Common rock and ore-forming minerals, common rocks, and maps will be studied in the laboratory. Geology 102 is required to accompany this course. Beginning course for all geology majors and geological engineers.

- 112. Historical Geology.** (5:4:2) W.S. Staff
Continuation of Geology 111, constituting a study of the history of the earth and its life forms. Representative fossils will be studied in the laboratory.

- 113. Introductory Field Geology.** (5:3:6) A.S. Hintze, Rigby
Continuation of Geology 112, involving principles of stratigraphy, introduction to paleontology, and applied physical and historical geology.

- 251. Introductory Mineralogy.** (3:2:4) A. Bullock
Introductory study of crystallography and other important physical properties of minerals; and a detailed study of the rock forming minerals.

252. **Economic Mineralogy.** (3:2:4) W. Prerequisite: Geology 251. Bullock
Comprehensive study of mineral identification by means of chemical tests, physical properties, and blowpipe analyses, with emphasis on economic ore minerals.
253. **Rocks.** (3:2:2) S. Phillips
Megascopic study and classification of important igneous, sedimentary, and metamorphic rocks.

Upper Division Courses

305. **Geologic Illustration.** (3:2:2) W. Prerequisite: Geology 311 and Mathematics 112. Rigby
Office practice in planning and preparation of geologic maps, structure sections, and other geologic illustrations for professional reports.
- 306x. **Geomorphology.** (5) Home Study only. Bullock
A study of the earth's landscape features and their origin, dealing with the sculpturing of mountains, hills, plains, and plateaus by erosive processes, and the land form features produced by earth movements and volcanism.
311. **Structural Geology.** (5:5:0) A. Prerequisites: Geology 253 and Mathematics 112. Bissell
Study of structural features of the earth's crust and forces which have produced these structures.
312. **Map and Photo Interpretation.** (4:2:4) W. Prerequisite: Geology 311. Hintze
Study of use and interpretations of maps and aerial photographs.
313. **Geological Field Methods.** (3:2:2) S. Prerequisite: Geology 312. Bissell
Practice training in methods of geological field work and the use of field instruments.
410. **Summer Field Camp.** (6:0:40) (Summer only. See Summer Catalog). Prerequisite: Geology 313. Staff
A six-week Summer Field Camp in geological mapping. Emphasis is placed on quantitative solution of problems in engineering, petroleum, and mining geology. A one-hour seminar is required during Spring Quarter prior to field camp. Required of all geology and geological engineering students.
450. **Petrographic Mineralogy.** (4:2:4) S. Prerequisite: Geology 252. Phillips
Introduction to optical identification of minerals from thin-sections and mineral fragments.
460. **Principles of Economic Geology.** (4:4:0) S. Prerequisite: Geology 311. Staff
Study of origin, mode of occurrence, classification, and use of the more important metallic ores and non-metallic mineral products. Field trips conducted to local mining camps.
470. **Principles of Sedimentology.** (4:3:2) W. Prerequisite: Geology 253. Bushman
Analytical study of sediments, their origin, constitution, and relationships.
475. **Principles of Stratigraphy.** (3:3:0) W. Prerequisite: Geology 253. Bissell
Study of principles of stratigraphic correlation, classification and identification.
480. **Introduction to Paleontology.** (4:3:2) A. Prerequisite: Geology 113. Rigby
Systematic study of fossil remains of the animal kingdom, and intro-

ductory study of structure, distribution and development of animals in past ages.

Advanced Undergraduate or Graduate Courses

501. **Rocks and Minerals.** (3:3:0) S. Brimhall
Introductory study of fundamentals of rock and mineral classification and identification. Designed to acquaint the student with the earth's common raw materials, their occurrences, and uses. For students other than geology majors.
A course designed to acquaint the teacher with methods and procedures for teaching geology and with sources of information, projects, and illustrative materials useful in the classroom.
502. **Geology for Teachers.** (3:3:0) W. Home Study also for undergraduate credit. Bushman
503. **Geology of Utah.** (3:3:0) A. Hansen
505. **Geological Literature and Scientific Report Writing.** (2:2:0) W. Brimhall
506. **Laboratory Techniques.** (1:0:2) A. Rigby
507. **Founders and Concepts in Geology.** (4:4:0) A. Bushman
511. **Geomorphology.** (4:3:2) A. Bushman
512. **Geology of the United States.** (5:5:0) W. Hansen
520. **Petroleum Geology.** (5:5:0) A. Prerequisite: Geology 311. Hansen
525. **Well Logging Methods and Log Interpretation.** (4:2:4) S. Prerequisites: Geology 313 and Physics 113 or 213. Staff
530. **Engineering Geology.** (4:4:0) A. Hansen
535. **Ground Water.** (5:5:0) S. Hansen
540. **Introduction to Geophysics.** (3:3:0) A. Prerequisites: Geology 311, and Physics 113 or 213. Brimhall
563. **Mining Geology.** (3:3:0) S. Prerequisite: Geology 460. Brimhall
575. **Pre-Cambrian and Paleozoic Stratigraphy.** (4:4:0) W. Hintze
576. **Mesozoic and Cenozoic Stratigraphy.** (4:4:0) S. Bushman
580. **Invertebrate Paleozoology (Protozoans through Brachiopods).** (5:3:4) W. Prerequisite: Geology 480. Staff
581. **Invertebrate Paleozoology (Mollusks through Hemichordates).** (5:3:4) S. Prerequisite: Geology 480. Staff
- 591, 592, 593. **Seminar.** (1:1:0 ea.) A.W.S. Staff

Graduate Courses

610. **Structural Geology.** (4:4:0) A. Hintze
615. **Photogeology.** (4:2:4) S. Hintze
617. **Conducted Field Trips.** (5:3:4) S. Bissell
621. **Oil Field Development.** (3:3:0) W. Prerequisite: Geology 313. Staff
622. **Oil Field Production.** (3:3:0) S. Prerequisite: Geology 313. Staff
640. **Seismology and Seismic Exploration.** (4:3:2) W. Prerequisites: Geology 540 and Mathematics 231. Staff

641. **Geophysical Exploration (Other than Seismic).** (3:2:2) S. Prerequisite: Geology 540 and Mathematics 231. Staff
645. **Geochemistry.** (3:2:2) A. Prerequisite: Geology 252. Staff
646. **Geochemical Techniques and Mineral Prospecting.** (3:2:2) W. Prerequisite: Geology 645. Staff
651. **Optical Mineralogy.** (5:3:4) A. Prerequisite: Geology 252. Phillips
652. **Microscopic Petrography.** (4:2:4) W. Prerequisite: Geology 450 or 651. Phillips
653. **Determinative Mineralogy.** (4:2:4) A. Prerequisite: Geology 451 or 651. Phillips
655. **Igneous Geology.** (4:3:2) W. Bullock
656. **Metamorphic Geology.** (4:3:2) S. Bullock
661. **Metalliferous Deposits.** (4:3:2) A. Bullock
662. **Non-Metalliferous Deposits.** (3:3:0) S. Bullock
665. **Minerography.** (3:2:2) W. Phillips
670. **Sedimentology.** (3:2:2) A. Bissell
671. **Sedimentary Petrology.** (3:3:0) W. Bissell
672. **Sedimentary Petrography.** (2:1:2) W. Bissell
673. **Sedimentary Tectonics.** (4:4:0) S. Bissell
678. **Subsurface Stratigraphy.** (4:3:2) S. Bushman
680. **Micropaleontology.** (3:2:2) A. Prerequisite: Geology 480. Rigby
681. **Biometrics.** (3:2:2) S. Rigby
682. **Vertebrate Paleontology.** (4:3:2) W. Prerequisite: Geology 480. Hansen
683. **Biostratigraphy.** (4:3:2) W. Prerequisite: Geology 480. Rigby
684. **Stratigraphic Paleontology.** (5:3:4) S. Prerequisite: Geology 480. Rigby
685. **Paleoecology.** (4:3:2) S. Rigby
696. **Readings and Conference in Geology.** (1-6:1-6:0) A.W.S. Staff
698. **Research.** (2-6:2-6:0) A.W.S. Staff
699. **Thesis Writing for Master's Degree.** (1-6:1-6:0) A.W.S. Staff
799. **Dissertation for Doctor of Philosophy Degree.** (Arr.) A.W.S. Staff

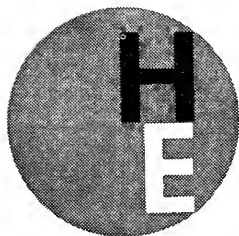
Professors: C. J. Hart, Hartvigsen.

Associate Professor: H. J. Nicholes.

Assistant Professors: Geddes (chairman, 238 SFH), Duerden, Robison, Watters.

Instructors: C. R. Kimball, Leake.

Health Education



Health Education Major: Students desiring to major in Health Education will take the following courses: 121, 325, 381, 451, 521, 530, 551, and 552 and 13 hours chosen from the elective courses which also count in Health Education. The student's program is to be established through consultation with an adviser from the department.

Health Education Minor: Students may minor in Health Education by completing the following courses: 121, 381, 521, and 530 and six hours selected from the following: 310, 325, 451, 551, 552 and Foods 115. In addition they may count seven hours from the elective courses which also count in Health Education.

Lower Division Courses

- 110. Driver Education Laboratory.** (1:1:2) W.S. Leake
Driver education for beginning drivers. Used as a laboratory in conjunction with Health Education 310. No driving experience required.
- 121. First Aid.** (2:3:0) A.W.S. C. R. Kimball, Watters
Principles and practices in emergency care and first aid treatment of injuries. Those successfully completing course will be given American Red Cross First Aid Certificate.
- 130. Personal Health.** (2:2:0) A.W.S. Home Study also. Leake, Staff
Required of all freshman students. May be taken any quarter during freshman year. Designed to develop adequate knowledge, desirable attitudes, and desirable health practices.

Upper Division Courses

- 310. Driver Education and Training for High School Teachers.** (2:2:1) W.S. Leake
Designed to qualify high school teachers and instructors in driver education and behind-the-wheel training.
- 325. Safety Education.** (3:3:0) A.W.S. Home Study also. Watters
Emphasizes the school safety program, safety in the home, bicycle and traffic safety, and other areas of safety of concern to the educator.
- 332. Studies in Alcohol Education.** (2:2:0) A. Leake
Nature and effects of alcohol on human organism. Consideration given to effects of alcohol on developing cell, body resistance, longevity, morbidity, mentality, and personality.

- 333. Fundamentals of Human Metabolism.** (3:3:0) S. Geddes
Study of the metabolic processes in the human organism responsible for irritability, conductivity, contractility, and recovery from fatigue.
- 361. The Elementary School Health Program.** (3:3:0) A.W.S. Home Study also. Leake, Robison
Fundamental principles of health and their application to elementary school. Designed for those preparing to teach in elementary schools.
- 362. The Secondary School Health Program.** (3:3:0) A.W.S. Home Study also. Staff
Fundamental principles of health and their application to secondary school. Designed for those preparing to teach in secondary schools.
- 381. Program Planning in Secondary School Health Education.** (3:3:0) A.S. Staff
Emphasis on the role of the health specialist in integrated and concentrated programs; a study of functions, program planning, and resource materials related to school health education.
- 451. Health Observation in Schools and Community.** (2:2:0) W. Duerden
Designed to provide skill and understanding in observing deviations from normal health as these deviations occur in the school and in the community. Relationships between the school and community will be emphasized especially as they concern the recognition of disease, its prevention and control, and general methods in health promotion.

Advanced Undergraduate or Graduate Courses

- 501. Health Education Workshop.** (1:3:0:11-33) A.W.S. Staff
Intended primarily for extension credit and/or Summer School. Involves a presentation of health education problems followed by discussions—conducted on a workshop basis.
- 510. Seminar in Driver Education.** (2:2:0) S.Su. Prerequisite: 310 or equivalent. Leake
Deals with problems of implementing driver education and training in secondary schools. It is designed primarily for experienced teachers who discuss problems, obtain new ideas, and review the latest research in the field.
- 511. Human Metabolic Processes.** (5:3:4) A. Geddes
Methods and techniques in the investigation of human metabolic processes as they relate to cardiorespiratory, kidney, and blood functions.
- 521. Evaluation and Selection of School Health Material.** (3:3:0) W. Geddes
Pamphlets, brochures, films, textbooks, and other school health resource materials are evaluated and selected for present and future use.
- 530. Instructor's Course in First Aid.** (3:3:0) S. Prerequisite: Advanced First Aid Card. Watters
A course designed to qualify instructors in Red Cross First Aid, in order that they may conduct classes to qualify individuals for standard and advanced Red Cross cards.
- 551. Field Work in Community Health.** (3:6:6) S. Duerden
Designed to broaden the understanding of community health agencies, their roles, programs, and relationships. This is accomplished by field introductions to the various official and voluntary health agencies followed by the selection of agencies in which to do field work during the quarter.
- 552. School Health Services.** (3:3:0) A.S. Geddes
Considers desirable school health services and functions and relationships to public education and education law. Coordinates school health services with community programs.

- 560. Stimulants and Depressants.** (2:2:0) W. Staff
Modification of normal physiological processes by stimulant and depressant drugs and materials.

Education Courses

- 377. Secondary Teaching Procedures.** (3-4:3:0-3) W.S. Staff
For course description and fees see Instruction 377.
- 478. Unit Planning and Teaching.** (4:3:5) A.W. Staff
For course description and fees see Instruction 478.
- 479. Secondary Student Teaching.** (7-12:1:20-30) A.W.S. Staff
For course description and fees see Instruction 479.

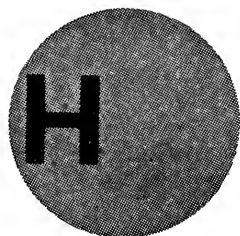
Graduate Courses

- 692. Research Methods in Health Education.** (5:5:0) A. Staff
- 693. Research in Health Sciences.** (2-8:1-5:5-25) A.W.S. Staff
Independent and/or directed research in problems associated with the health sciences. This course gives credit to those graduate students involved in directed or independent research from grant-in-aid, fellowship, or contract grant support.
- 694. Seminar in Readings.** (2:2:0) A.W.S. Staff
- 696. Seminar in Problems.** (1:1:0) A. Staff
- 698. Field Project.** (2-6:2-5:0) A.W.S. Staff
- 699. Thesis for Master's Degree.** (2-6:2-5:0) A.W.S. Staff

These courses also count in Health Education:

- Bacteriology 121. Bacteriology.** (4:3:2)
- Bacteriology 311. Sanitation and Public Health.** (3:3:0)
- Chemistry 101. Introductory Inorganic Chemistry.** (5:5:4)
- E.R.S. 520. Group Guidance Techniques for Teachers.** (3:3:0)
- Food and Nutrition 115. Essentials of Nutrition.** (3:3:0)
- H.D.F.R. 261. The Latter-day Saint Family.** (2:2:0)
- H.D.F.R. 360. Achieving Success in Marriage.** (3:3:0)
- H.D.F.R. 466. Teaching Marriage and Family Relationships in the High School.** (3:3:0)
- Psychology 340. Mental Hygiene.** (3:3:0)
- Psychology 370. Elementary Statistics.** (3:3:0)
- Psychology 445. Exceptional Children.** (3:3:0)
- Psychology 550. Psychology of Personality.** (4:4:0)
- Recreation 537. Philosophy of Recreation.** (3:3:0)
- Sociology 426. The Sociology of Urban Life.** (5:5:0)
- Sociology 449. Community Organization, Action and Planning.** (3:3:0)
- Sociology 580. Social Relations in Medical Health Organizations.** (3:3:0)
- Zoology 164. Anatomy and Physiology.** (5:3:4)
- Zoology 365. General Physiology.** (5:3:4)
- Zoology 661. Advanced General Physiology.** (3:3:0)
- Zoology 662. Advanced General Physiology.** (3:3:0)
- Zoology 663. Advanced General Physiology.** (3:3:0)

History



Professors: Poll (chairman, 332 McKay),
Campbell, L. Hafen, R. Swensen.

Assistant Professors: Addy, Fielding, Hunt, D. L. Jensen.

Instructors: Hyer, Sheffield.

Requirements for a Major

A history major requires the completion of 45 hours of work in this field. These courses are required: History 110, 111, 120 and 121, normally taken in the freshman and sophomore years; History 388 and Library Science 370, junior year; History 490, senior year. Majors who seek certification in secondary education are also required to take History 366. The remaining elective hours should be selected in consultation with the departmental adviser.

A comprehensive examination is given to all majors in the final quarter of the senior year.

A student deciding to major in history should immediately consult the chairman of the department, who will assist in the selection of the minor field.

For the requirements for a teaching major in history and for the composite major in social sciences, which includes history, see College of Education.

Suggestions for a Minor

A history minor requires 20 hours of course work **not** including History 170 or 180. At least 10 hours should be chosen from History 110, 111, 120, and 121.

For the requirements for a teaching minor in history, see College of Education.

American History and Government Requirement

Satisfactory completion of course work in American history and government is required for all candidates for a bachelor's degree from any of the colleges of the university. History 170, History 180, or any of the following combinations of courses satisfies this requirement:

History 120 and 121.

History 120 and Political Science 110.

History 121 and Political Science 110.

Political Science 110 and Economics 274.

No student should enroll in History 170 or 180 until he has taken the classification test which is administered in connection with the testing program for incoming students and at other announced times.

Students majoring or minoring in history should **not** take History 170 or 180.

Students studying economics, finance and banking, journalism, political science, or instruction (social sciences) should elect the combinations appropriate to their fields.

Transfer students desiring to offer work from other institutions to satisfy this requirement should consult the chairman of the History Department for clearance.

History 170 and 180 are credited toward the fulfillment of the social science group requirement. Other courses taken to satisfy the American history and government requirement also are credited toward group requirements, the history courses applying to the humanities group and the political science and economics in the social science group.

Lower Division Courses

- 110. World Civilization I.** (5:5:0) A.W.S. Home Study also. (G-HA) Staff
Beginnings of major world civilizations and their development to approximately 1500 A.D., with emphasis on Europe.
- 111. World Civilization II.** (5:5:0) A.W.S. Home Study also. (G-HA) Staff
Development of major world civilizations since 1500, with emphasis on Europe.
- 120. The United States to 1865.** (5:5:0) A.W.S. Home Study also. (G-HA) Staff
Discovery and colonization, the American Revolution, establishment of the Constitution, foreign affairs, westward expansion, sectionalism and the Civil War.
- 121. The United States since 1865.** (5:5:0) A.W.S. Home Study also. (G-HA) Staff
Civil War and reconstruction, industrialization and urbanization, American imperialism, progressivism, World Wars, New Deal and current problems.
- 170. The American Heritage.** (5:5:0) A.W.S. (G-SS) Staff
Growth of the United States under the Constitution, with emphasis on political ideas and institutions and the adaptation of the governmental system to America's role as an industrial and world power.
- 180. The American Heritage.** (5:5:0) A.W.S. (G-SS) Staff
Selected sections of the basic course in American history and government (see History 170). Problems emphasis. Enrollment determined by classification test. No student who has had History 170 should enroll in History 180.

Upper Division Courses

- 300. Early Oriental History.** (3:3:0) A. (G-HA; G-R) Nibley
Ancient Egypt, Babylonia, Assyria, Arabia, Persia and Palestine.
- 304. Greek History and Civilization.** (5:5:0) W. (1959-60 and alternate years.) (G-HA) Swensen
- 307. Roman History and Civilization.** (5:5:0) (1960-61 and alternate years.) (G-HA) Swensen
- 312. Renaissance and Reformation.** (3:3:0) A.W.S. Home Study also. (G-HA; G-R) Staff
- 316. Western Civilization I.** (1-3:Arr.:Arr.) (G-HA) Staff
Limited to participants in the B.Y.U. Travel-Study Program.
- 317. Western Civilization II.** (1-3:Arr.:Arr.) (G-HA) Staff
Limited to participants in the B.Y.U. Travel-Study Program.
- 321x. History of Modern Europe.** (3) Home Study only. Addy
History of Europe, 1500-1815. A survey of political, economic, social and cultural developments in early modern Europe.

- 322x. History of Modern Europe.** (3) Home Study only. Addy
History of Europe, 1815-1914. A survey of political, economic, social
and cultural developments from Waterloo to World War I.
- 323. Europe in the Twentieth Century.** (3:3:0) S. Home Study also. (1959-60 and
alternate years.) (G-HA) Jensen
- 330. Russia.** (5:5:0) W. (G-HA) Mabey
Emphasis on the late empire and the Soviet Union. Not open to students
who have taken History 331x.
- 331x. History of Russia Since 1900.** (3) Home Study only. Mabey
Survey of the main trends in Russian development, with emphasis upon
those factors which contribute to an understanding of the U.S.S.R. today.
Not open to students who have taken History 330.
- 332. France Since 1660.** (3:3:0) S. (1959-60 and alternate years.) Home Study
also. (G-HA) Jensen
- 333. Modern Germany.** (3:3:0) (1960-61 and alternate years.) (G-HA) Jensen
- 334. Spain.** (3:3:0) (1960-61 and alternate years.) (G-HA) Addy
- 335. England.** (5:5:0) A. (1959-60 and alternate years.) (G-HA) Jensen
Not open to students who have taken History 336x and 337x.
- 336x. History of England to 1714.** (3) Home Study only. Jensen
Development of the English people and institutions from earliest times
to 1714. Special consideration to Tudor period and evolution of parliamen-
tary sovereignty. Not open to students who have taken History 335.
- 337x. History of England since 1714.** (3) Home Study only. Jensen
Development of cabinet government; economic and humanitarian move-
ments; growth of the empire; the World Wars; post-war problems. Not open
to students who have taken History 335.
- 340. Asia.** (5:5:0) A. (G-HA) Hyer
Emphasis on China, Japan and India.
- 345. China.** (5:5:0) S. (G-HA) Hyer
- 346. Japan.** (3:3:0) (1960-61 and alternate years.) (G-HA) Hyer
- 347. India.** (3:3:0) W. (1959-60 and alternate years.) (G-HA) Hyer
- 351. History of Latin America.** (3:3:0) A.W. Home Study also. (G-HA)
Addy, Hunt
Colonial Period. A study of the geography, pre-Columbian civilizations,
conquest, and institutional development of Latin America from 1492 to 1800.
- 352. History of Latin America.** (3:3:0) W. Home Study also. (G-HA)
Addy, Hunt
National Period. The wars of independence, evolution of modern repub-
lics, cultural development, inter-American relations, and institutional de-
velopment of Latin America from 1800 to the present.
- 353. Mexico.** (3:3:0) S. (1959-60 and alternate years.) Home Study also. Addy
- 360. The American Frontier.** (3:3:0) A.W.S. (G-HA) Staff
Highlights and significance of the westward movement in American his-
tory.
- 364. The Indian in American History.** (3:3:0) S. (1959-60 and alternate years.)
Hafen
- 365. California.** (3:3:0) (1960-61). Home Study also. Campbell

- 366. Utah.** (3:3:0) A.W.S. Home Study also. (G-HA; G-R) Staff
Emphasis on the Utah territorial period and the Mormon contribution.
- 370x. American Colonial History.** (3) Home Study only. Fielding
History of the United States to 1763. Background of European explorations, the great explorers, factors promoting colonization, planting and governing colonies by the Spanish, French and English; rivalry of the great powers for control of America, institutions and patterns of culture in the 18th century.
- 373. American Intellectual and Cultural Growth.** (3:3:0) W. (G-HA) Fielding
- 384. American Foreign Relations.** (5:5:0) A. Home Study also. Hunt
- 388. Historiography.** (3:3:0) A.S. Swensen
Fundamental problems and types of historical analysis and interpretation, philosophies of history, and work of outstanding historians. Required of history majors and recommended for the junior year.
- 490. Senior Seminar.** (3:3:0) A.W.S. Staff
Required of all history majors in the senior year.
- 498. Special Readings in History.** (Arr.) A.W.S. Staff

Advanced Undergraduate or Graduate Courses

In the Department of History, courses in the 500 series provide systematic coverage of rather broad areas of subject matter through text and library readings, lectures, reports, and class discussions. Students who have not completed the relevant courses from among History 110, 111, 120 and 121 should obtain permission of the instructor before enrolling in any of these courses.

- 503. Literary History of the Greeks.** (3:3:0) W. Nibley
- 509. Literary History of the Roman Empire.** (3:3:0) S. Nibley
- 511. Medieval Germany and the Papacy.** (3:3:0) A. (1959-60 and alternate years.) Swensen
- 512. Medieval Thought and Culture.** (3:3:0) (1960-61 and alternate years.) Swensen
- 522. Nineteenth Century Europe.** (3:3:0) (1960-61 and alternate years.) Addy
- 525. European Diplomatic History since 1815.** (3:3:0) (1960-61 and alternate years.) Jensen
- 528. Modern European Thought and Culture.** (3:3:0) W. (1959-60 and alternate years.) Jensen
A study of the most influential ideas and intellectual movements, along with their varied forms of expression, during the last three centuries.
- 548. Culture of Asia.** (3:3:0) A. (1959-60 and alternate years.) Hyer
- 562. American Westward Movement to 1825.** (5:5:0) W. Hafen
- 563. American Westward Movement after 1825.** (5:5:0) S. Hafen
- 572. American Revolution and the Confederation.** (3:3:0) S. Fielding
- 579. Contemporary United States History.** (3:3:0) W. (1959-60 and alternate years.) Prerequisite: History 121 or equivalent. Poll
- 585. Historical Geography of United States.** (3:3:0) W. (1959-60) Staff
- 589. Historical Classics.** (3:3:0) (1960-61 and alternate years.) Staff

Graduate Courses

In the Department of History, courses in the 600 series, excepting seminars, develop selected problems within the general areas of the course titles through extensive library reading, reports, and class discussions. Seminars require each participant to produce a substantial research paper. Seniors who have completed all of the specifically required courses for the undergraduate major may enroll in these courses with the permission of the instructor.

- | | |
|---|-----------|
| 606. Greek Thought. (3:3:0) (1960-61 and alternate years.) | Swensen |
| 618. Renaissance and Reformation. (3:3:0) A. (1959-60 and alternate years.) | Jensen |
| 621. Modern Europe. (3:3:0) (1960-61 and alternate years.) | Jensen |
| 640. The Far East. (3:3:0) (1960-61 and alternate years.) | Hyer |
| 650. Latin America. (3:3:0) W. (1959-60 and alternate years.) | Addy |
| 656. Southwestern United States. (3:3:0) (1960-61 and alternate years.) | Hafen |
| 670. Colonial America. (3:3:0) A. (1959-60 and alternate years.) | Fielding |
| 675. The New Nation. (3:3:0) W. (1959-60 and alternate years.) | Hunt |
| 676. Jacksonian America. (3:3:0) (1960-61 and alternate years.) | Fielding |
| 677. Civil War and Reconstruction. (3:3:0) (1960-61 and alternate years.) | Poll |
| 678. American Industrial Revolution. (3:3:0) S. (1959-60 and alternate years.) | Poll |
| 686. Constitutional History of the United States. (3:3:0) W. | C. Jensen |
| 690. Teaching History in College and University. (3:3:0) (1960-61 and alternate years.) | Staff |
| 694. Seminar in European History. (3:3:0) S. | Staff |
| 695. Seminar in Western American History. (3:3:0) A. | Hafen |
| 696. Seminar in United States History. (3:3:0) W. | Staff |
| 697. Seminar in Utah History. (3:3:0) A. | Staff |
| 698. Special Readings in History. (1-2:1-2:0) A.W.S. | Staff |
| 699. Thesis for Master's Degree. A.W.S. | Staff |
| 799. Dissertation for Doctor's Degree. A.W.S. | Staff |

These courses also count in History:

Economics 274. Economic History of the United States. (5:5:0)

Library Science 370. Historical Bibliography and Methods of Research. (3:3:0)

Political Science 506. History of American Political Thought. (3:3:0).

Political Science 522. Contemporary Problems. (3:3:0).

Political Science 557. Government and History of Canada. (3:3:0)

Political Science 595. American Constitutional Development. (3:3:0)

Professor: Nibley.

**Associate
Professors:** Rich, Yarn.

**Assistant
Professors:** Andrus, Barrett, Barron, Clark,
Horsley, Larson, Madsen (chair-
man, 218 S), Riddle, Rogers.

History and Philosophy of Religion



Courses in the Department of History and Philosophy of Religion are offered to help students meet the religious requirements of the university. An undergraduate major or minor is **not** offered in this department. A graduate major or minor is offered at both the master's level and doctoral level (See section on the College of Religious Instruction).

CHURCH HISTORY

Lower Division Courses

131, 132, 133. Latter-day Saint History and Doctrine. (2:2:0 ea.) A.W.S. (G-R)
Staff

Survey course in the history of the Church with progressive study of the development of its institutions, beliefs, doctrines, and religious practices in relation to the social and historical setting.

Upper Division Courses

301, 302, 303. History of the Church of Jesus Christ of Latter-day Saints. (2:2:0 ea.) A.W.S. 301 and 302 Home Study also. (G-R) Recommended for juniors or seniors who have not had 131, 132, 133. Andrus, Barrett, Barron, Horsley, Larson, Rich

Intensive study of the history of the Church from 1805 to 1847.

304, 305, 306. History of the Church of Jesus Christ of Latter-day Saints. (2:2:0 ea.) A.W.S. (G-R) Barrett, Barron, Larson, Rich
Intensive study of the history of the Church from 1848 to the present.

307. Biographies of L.D.S. Leaders. (2:2:0) A.S. Home Study also. (G-R) Barrett

A biographical study of significant L.D.S. Church personalities of the first half century of the restoration.

351. Great Figures in Christian History. (2:2:0) S. Home Study also. Horsley
Biographical study of significant Christian personalities and their contributions to Christianity from Paul to Joseph Smith.

352. Martin Luther—Forerunner of the Restoration. (2:2:0) S. Home Study also. Horsley

Study of Luther's life, theology, and influence upon Protest-Christianty, with special emphasis upon the significance of Luther for Mormonism.

353. The History of American Religion. (2:2:0) S. Horsley

355. World Religions. (2:2:0) A.W.S. L. M. Rogers

364. **Survey of Christian History to the Thirteenth Century.** (2:2:4) A.W.S. Horsley
(G-R)
365. **Renaissance and Reformation.** (2:2:0) W. (G-R) Horsley
366. **Modern Christian History.** (2:2:0) S. (G-R) Horsley

PHILOSOPHY

Upper Division Courses

308. **Survey of Philosophy.** (3:3:0) A.W.S. (G-R; G-HA) Yarn
Introduction to types, fields, and problems of philosophy.
310. **Introduction to Logic.** (3:3:0) A.W.S. (G-R; G-HA) Riddle
Formal aspects of language, deductive logic, and scientific method.
- Philosophy 308 or the consent of the instructor is prerequisite for 400 series courses.
420. **Ethics.** (3:3:0) A. (G-R; G-HA) Madsen
Examination of the meaning and function of moral judgments and the leases of ethical commitment.
424. **Problems of Knowledge.** (3:3:0) A. (G-R; G-HA) Riddle
Analysis of how experience becomes knowledge.
425. **Philosophy of Science.** (3:3:0) W. (G-R; G-HA) Riddle
Examination of the conceptual framework of modern science.
426. **Types of Religious Philosophy.** (3:3:0) W. Yarn
Survey of the philosophical bases of Christian religions.

HISTORY AND PHILOSOPHY OF RELIGION

Advanced Undergraduate or Graduate Courses

514. **The Primitive Church.** (2:2:0) A. Nibley
515. **Christianity in the Second and Third Centuries.** (2:2:0) W. Nibley
516. **The Imperial Church.** (2:2:0) S. Nibley
524. **Social, Economic, and Political Thought of Joseph Smith.** (3:3:0) A.W.S. Andrus
- 531, 532, 533. **Historical Development of L.D.S. Doctrines and Practices.** (2:2:0 ea.) A.W.S. Andrus, Rich
544. **History of the Papacy.** (3:3:0) A. Horsley
545. **Contemporary European Christianity.** (3:3:0) W. Horsley
546. **Scholasticism, Humanism, Mysticism.** (3:3:0) S. Horsley
551. **Comparative World Rites and Liturgy.** (2:2:0) A. Nibley
552. **Islam.** (2:2:0) W. Nibley
553. **The Development of Christian Rites and Liturgy.** (2:2:0) S. Nibley
561. **Research Problems in Genealogy.** (2:2:0) A.W.S. Prerequisite: Church Administration 318. Bennett
562. **Current Theological Trends.** (3:3:0) W. Madsen
571. **History of Ancient Philosophy.** (3:3:0) A. Yarn
Greek philosophy from Thales to the Sceptics.

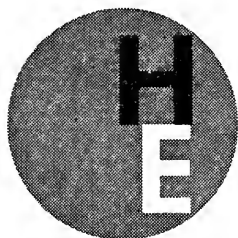
572. **History of Medieval Philosophy.** (3:3:0) W. Yarn
Neoplatonism, and Christian philosophy to the Reformation.
573. **History of Modern Philosophy.** (3:3:0) S. Yarn
Philosophic thought from the Renaissance through the 19th Century.
574. **Contemporary Anglo-American Philosophy.** (3:3:0) A. Madsen
Men and movements in naturalism and logical positivism.
579. **Contemporary Continental Philosophy.** (3:3:0) W. Madsen
20th Century developments in existentialism, phenomenology and Marxism.
581. **Comparative World Religions.** (2:2:0) A. Rogers
Hinduism, Jainism, and Sikhism.
582. **Comparative World Religions.** (2:2:0) W. Rogers
Buddhism, Taoism, Confucianism, and Shintoism.
583. **Comparative World Religions.** (2:2:0) S. Rogers
Judaism, Zoroastrianism, and Islam.
- 590, 591, 592. **Seminar.** (Arr.) A.W.S. Staff

Graduate Courses

611. **Advanced Survey of L.D.S. History.** (3:3:0) A. Andrus, Larson, Rich
Covers the period 1800-1847.
612. **Advanced Survey of L.D.S. History.** (3:3:0) W. Andrus, Larson, Rich
Covers the period 1847-1896.
613. **Advanced Survey of L.D.S. History.** (3:3:0) S. Andrus, Larson, Rich
Covers the period 1896 to present.
- 621, 622, 623. **Special Problems in L.D.S. Church History.** (2:2:0 ea.) A.W.S.
Larson, Rich
632. **Reformation and Counter-Reformation.** (5:5:0) S. Horsley
647. **Comparative Studies in American Religions.** (2:2:0) A. Horsley
New world expansion of Catholic Christianity and the beginnings of American Protestantism.
648. **Comparative Studies in American Religions.** (2:2:0) W. Horsley
Development of denominationalism, causative factors, type of sects—pessimism, Millenarianism, Utopianism.
649. **Comparative Studies in American Religions.** (2:2:0) S. Horsley
Pentecostalism—Geographical considerations, late 19th and 20th century developments and the ecumenical movement.
651. **Seminar in Philosophical Analysis.** (3:3:0) A. Riddle
653. **Seminar in Philosophy of Religion.** (3:3:0) W. Madsen
699. **Thesis for Master's Degree.** (Arr.) Arr. Staff
799. **Doctoral Dissertation.** (Arr.) Arr. Staff

Homemaking Education

Assistant Professor: Poulson (chairman, 2218 SFLC)
Instructor: Applonie.
Special Instructors: F. Beck, H. Wakefield.



The objective of the Department of Homemaking Education is two-fold: to help students become professionally minded, and to provide instruction that will lead to certification to teach. For certification, a bachelor's degree in arts or science from an accredited college and a teaching certificate from the State Department of Public Instruction are required.

Prospective teachers should know that the comprehensive objectives of teaching homemaking are to help girls and boys in the secondary schools meet their needs as individuals, as family members, and as community members. The teacher's professional qualifications include enthusiasm for teaching, knowledge and use of social skills, a well-groomed personal appearance, and a wholesome acceptance of professional responsibilities.

Majors in the Department of Homemaking Education will need to complete the following program to receive a bachelor's degree with a major in Homemaking Education and a certificate from the State Department of Public Instruction to teach all areas of homemaking in secondary schools:

1. **College of Family Living required courses—59-60 hours:**
 Clothing and Textiles 110, 115, 225, 260 or 370, 335, 475.
 Food and Nutrition 110, 255, 256, 264, 265, 340.
 Economics and Management of the Home 325, 330, 470.
 Housing and Design 360, 375.
 Human Development and Family Relationships 210, 211, 322, 361.
 Nursing 288.
2. **College of Family Living elective courses—5 or more hours from:**
 Clothing and Textiles 355.
 Food and Nutrition 170, 330, 345, 560.
 Housing and Design 120, 335.
 Human Development and Family Relationships 160, 360.
 Economics and Management of the Home 350.
3. **University and State Department of Public Instruction requirements:** These should be met by taking the following number of hours from the recommended courses below.

A. General Education Requirements

Biological science	11	Physical science	12
Bacteriology 121		Chemistry 101	
Zoology 105 or 164		Chemistry 102	
Health 130*		Physics 104	
Humanities and aesthetics	15	Social science	15
Art 110		Economics 101 or Agr. Econ. 101	
Other art (3), literature (6), music, philosophy, speech (4)		History 170 or 180	
		Psychology 111	

B. Professional education courses, 36 credit hours

Homemaking Education	17	College of Education	19
Homemaking Education 377, 475, 478, 479		Instruction 301, 450 E.R.S. 405 Ed. Adm. 310 Ed. Phil. 415 Health Education 362	

C. Suggested Electives

Instruction 305, Journalism 101, Speech 102 or 103

*Although not listed for Biological Science credit by the university, this course fulfills a state requirement for homemaking education majors.

Suggested Program for Majors in Homemaking Education

Freshman Year

	A	W	S		
Religion	2	2	2	Health Education 362	3
English (composition)	3	3	3	Instruction 301	2
Physical Education	1	1	1	Economics and Management of the Home 330 (W. or S.)	3
Health 130			2	History 170 or 180	5
Chemistry 101, 102	5	4		Food and Nutrition 340 (A. W. or S.)	4
Physics 104			3	Housing and Design 360, 375	2 3
Art 110 (A, W or S)	2			H.D.F.R. 322 (A.W. or S)	3
Clothing and Textiles 110, 115	2	3		Homemaking Education 377 (W. or S.)	3
Food and Nutrition 110			4	Clothing and Textiles 355	4
Family Living 101	1			Electives	2 3
Bacteriology 121			4		
Electives (A. W. or S.)			2	Total Hours	16 17 16
Total Hours	16	17	17		

Senior Year

Student Teaching Block Plan
Plan I

First Half

A.W. or S.

Religion	2	2	2	Homemaking Education 475	2
Psychology 111 or 370 ..	5			Clo. and Textiles 475	2
Economics 101 or Agr. Economics 101		5		Homemaking Education 478	4
Clothing and Textiles 225, 260 or 370			2-3	Second Half Homemaking Education 479	9
Economics and Management of the Home 325			3	Plan II First Half Homemaking Education 479	9
Food and Nutrition 255, 256, 264, 265		4	5	Second Half Clothing and Textiles 475	2
Zoology 105 or 164	5			Homemaking Education 475	2
H.D.F.R. 210, 211, 361....		4	3	Econ. and Mgt. of Home 470	4
Nursing 288	2			Plan III First Half Homemaking Education 478	4
Electives		2		Econ. and Mgt. of Home 470	4
Total Hours	17	17	15-16	Second Half Homemaking Education 479	9

Junior Year

	A	W	S		
Religion	2	2	2	Homemaking Education 478	4
English (literature)		3		Econ. and Mgt. of Home 470	4
Clothing and Textiles 335	3			Second Half Homemaking Education 479	9

Remaining Two Quarters			Educational Research and	
	A or W	W or S	Services 405	5*
Electives	2	3	Educational Philosophy	
Religion	2	2	415	3*
Humanities	3		Instruction 450	3*
Literature	3		Total Hours	16
Art	3			
Educational Adm.			*Must be taken after student teaching.	
310	3			

Opportunities for Informal Teaching Experience

Opportunities are provided by the College of Family Living for the student to observe and participate in teaching at all age levels in these situations:

Nursery School (HDFR)

B.Y.U. Laboratory School

Provo City Adult Education classes, Wymount Village, Wyview Village

Heritage Halls Consultant Program (informal teaching)

L.D.S. Relief Society organizations

Upper Division Courses

- 377. Secondary Teaching Procedures.** (3:3:Arr.) A.W.S. Prerequisite: Instruction 301. Staff
For course description see Instruction 377.
- 381. Methods of Teaching Food and Nutrition.** (3:3:0) S. (Taught 1959-60 and alternate years.) Staff
Basic principles of teaching food and nutrition in hospitals and public health situations.
- 382. Methods of Teaching Food and Nutrition—Laboratory.** (2:0:2) S. (Taught 1959-60 and alternate years.) Staff
Application of basic principles of education.
- 475. Demonstration Experiences.** (2:2:2) A.W.S. Prerequisites: Homemaking Education 377 or equivalent blocked with Homemaking Education 479. Staff
Students plan and give demonstrations in areas of food, clothing, equipment, housing, and child care, and management. Demonstrations may be given in Aurelia Spencer Rogers Hall 9B (Homemaking Education Laboratory), L.D.S. Relief Society Meetings, other college classes, or adult groups. Methods of demonstration adapted to the teaching of homemaking in secondary schools are stressed.
- 478. Unit Planning and Teaching.** (3-4:5:5) A.W.S. Prerequisite: Homemaking Education 377. Staff
Blocked with Secondary Student Teaching 479 (required of students who plan to qualify for a vocational certificate.) Students will have experience in planning homemaking curriculum, setting up Adult Education Programs, observing F.H.A. program, and becoming familiar with the scope and philosophy of Home Economics.
- 479. Secondary Student Teaching.** (7-9:1:Arr.) A.W.S. Prerequisite: completion of two-thirds of the courses required from among all the subject matter departments within the College of Family Living. Staff
Supervised teaching is carried on in an approved homemaking department of a public secondary school for half a quarter on a full-day basis. The student teacher lives in the community in which she teaches. She bears her own expenses. Close contact is made with faculty, students, and community. Participation on committees and in extra-curricular activities and responsible planning and teaching is expected.

Graduate Courses

664. Curricula in Homemaking. (2-3:3:0) Su.	Staff
666. Teaching Home Economics in Secondary School. (3:3:0) Su. 1960.	Staff
668. Evaluation in the Teaching of Homemaking. (2-3:3:0) Su.	Staff
670. Supervision of Student Teachers in Homemaking. (2-3:3:0) Su.	Staff
672. Adult Education in Homemaking Education. (2-3:3:0) Su. 1960.	Staff
680. Methods of Research in Homemaking Education. (2-3:3:0) Su.	Staff
690. Independent Project in Homemaking Education. (1-4:4:0) Su.	Staff
694. Graduate Seminar in Homemaking Education. (1:1:0) Su.	Staff
698. Field Project. (Arr.) Su.	Staff
699. Thesis for Master's Degree. (Arr.) Su.	Staff

Horticulture and Horticultural Specialties

Professor: Harrison.

**Associate
Professor:** Ashton.

Instructors: Reimschiessel (chairman, 265
PSL), Pierce.



A student majoring in the Department of Horticulture must meet the entrance and graduating requirements of the College of Biological and Agricultural Sciences. At least two courses are required from each of the following areas:

Agricultural Economics 123, 125, 310.

Agronomy 141, 251.

Animal Husbandry 161, 170, 207, 217.

Botany 101, 123.

A student majoring in this department may emphasize either fruit production (pomology), floriculture and greenhouse management, landscape design (minor only), landscape gardening, ornamental horticulture and nursery management, or turf management.

All majors planning to do graduate work toward a Ph.D. degree are advised to take Mathematics 101 or 111, and 112 or 357; Chemistry 105, 106, and 107, or 111, 112, and 113; German 101, 102, and 103, or French 101, 102, and 103.

Students majoring in pomology are required to complete a minimum of 40 hours from the following courses: Horticulture 101, 102, 103, 310, 312, 317, 352, 353, 402, 403, 455, 456, 458, 471. Recommended courses: Agronomy 305 and 459; Botany 145, 410, 470; Chemistry 111; or equivalent courses.

Students majoring in floriculture and greenhouse management are required to take the following: Horticulture 103, 107, 112, 315, 318, 402, 403, 471; Agronomy 305, 459; Botany 145, 410, 470; Zoology 230 and 334.

Students minoring in landscape design are required to take Horticulture 103, 112, 315, 324, 430; Art 110, 121, 233, 313; Housing 375; Drawing 107, 113, 244, 245, 248, and 354.

Students majoring in landscape gardening are required to take the following: Horticulture 101, 102, 103, 107, 315, 317, 319, 324, 402, 403, 416, 430, 458, 471; Agronomy 302, 305, 451; Botany 230, 410, 470; Chemistry 111, Drawing 113; and Art 110.

Students majoring in ornamental horticulture and nursery management are required to take the following: Horticulture 101, 103, 107, 312, 315, 317, 402, 403, 416, 430, 458, 471; Botany 112, 310, 410; Agronomy 260, 305, 451, 459; Zoology 105, 230, 334.

Students majoring in turf management are required to take Horticulture 103, 107, 319, 324, 402, 403, 458, 471; Botany 112, 310, 410; Agronomy 260, 305, 451, 459; Zoology 105, 230, 334.

Students minoring in horticulture are required to take Horticulture 101, 102, 103, 107, 319, 324, 402, 403, and 416 or Botany 230.

Lower Division Courses

- 101. Principles of Fruit Production.** (3:3:0) A.W. Home Study also. Ashton
Introduction to pomology. Principles underlying the profitable production of trees and small fruits. Varieties, soils, sites, fertilizers, culture, pest control, harvesting, storage, and propagation.
- 102. Vegetable Production.** (3:3:0) S. Home Study also. Ashton
Principles and practices of profitable vegetable production.
- 103. Beautifying the Home Grounds.** (3:3:0) A.W.S. Reimschiessel
Principles of design and composition as applied to home ground development and plant culture.
- 107. Floriculture.** (3:3:0) A.S. Home Study also. Reimschiessel
Herbaceous plant culture in the greenhouse and out-of-doors.
- 112. Flower Arrangement.** (3:3:0) A.S. Reimschiessel
Principles and methods of arranging flowers and other plant materials for decorative use in the home and for exhibition.

Upper Division Courses

- 310. Small Fruit Production.** (3:3:0) W. Home Study also. Ashton
Principles and practices of successful and profitable production of small fruits for home and commercial plantings. Special emphasis on new varieties and disease and insect control.
- 312. Practical Orchard Management.** (5:1:8) S. Ashton
Training, pruning, fertilizing, insect control, fruit thinning of orchard trees.
- 315. Garden Flowers.** (3:2:2) S. Taught in odd-numbered years. Prerequisites: Botany 101, 123. Reimschiessel
Important ornamental herbaceous plants in Utah.
- 317. Nursery Practice.** (2:0:4) S. Taught in even-numbered years. Staff
- 318. Greenhouse Management.** (5:3:4) W. Taught in even-numbered years. Prerequisite: Horticulture 107. Staff
- 319. Turf Management.** (3:2:2) A. Taught in odd-numbered years. Staff
- 324. Landscape Design.** (3:0:6) W. Taught in even-numbered years. Prerequisites: Horticulture 103 and Drawing 113. Reimschiessel
Designing private and public home grounds.
- 352. Systematic Pomology.** (2:2:0) A. Taught in odd-numbered years. Ashton
Emphasis on identification, description, and nomenclature of fruits and fruit trees.
- 353. Harvesting and Storage of Fruits.** (2:2:0) A. Taught in even-numbered years. Ashton
Problems related to harvesting and storage of fruits and vegetables.
- 402. Plant Propagation.** (3:3:0) W. Ashton
Principles and practices of propagation of horticultural plants.
- 403. Plant Propagation Laboratory.** (2:0:4) W. Ashton
- 416. Woody Plants.** (3:2:2) S. Taught in odd-numbered years. Reimschiessel
Important ornamental woody plants in Utah.
- 430. Planting Design.** (3:0:6) W. Taught in odd-numbered years. Prerequisites: Horticulture 315, 316, and 324. Reimschiessel
Woody and herbaceous plant composition emphasized for private and public grounds.

455. **Advanced Pomology.** (5:3:4) A. Taught in odd-numbered years. Prerequisite: Horticulture 101. Ashton
Principles and practices of established deciduous orchards.
456. **Orchard Management.** (3:3:0) A. Prerequisite: Horticulture 101. Taught in even-numbered years. Ashton
Problems related to climate, soil, water, nutrition, varieties.
458. **Weeds and Seed Analysis.** (2:0:4) A. Reimschiessel
Important weeds occurring in Utah and their control. Weed seeds likely to occur in commercial seed.
471. **Diseases of Cultivated Fruits.** (3:3:0) A. Taught in even-numbered years. Ashton
Bacteria, fungus, virus, and nutritional diseases of horticultural plants.
- 491, 492, 493. **Seminar.** (1:1:0 ea.) A.W.S. Ashton
Current literature is reviewed. For seniors and graduate students majoring in horticulture or plant pathology.
- 495, 496, 497. **Special Problems in Horticulture.** (Arr.) A.W.S. Staff

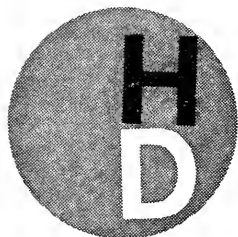
These courses also count in Horticulture:

Agronomy 459. **Plant Breeding.** (3:3:0)

Botany 470. **Diseases of Cultivated Plants.** (5:3:4)

Instructors: E. L. Gardner (chairman, 3256 SFLC), M. Barlow, L. Taylor, Vincent.

Housing and Design



The Department of Housing and Design is organized to help the student appreciate, understand, and plan for attractiveness and usefulness in home environment through study, observation, and creative experience. The primary goal is to increase ability to make the home and its surroundings worthy of their high purpose: to provide a place for the promotion of the spiritual, aesthetic, intellectual, and physical growth of the family as well as to provide shelter. Principles of good design and the wisdom of planning within the budget are emphasized.

A minor is offered with selected courses from related departments. A major may be elected in conjunction with the Department of Economics and Management of the Home or other related departments for students interested in interior decoration or home service work for commercial companies.

For a combined major in housing and design and in economics and management of the home a total of 32 credit hours in the two departments is required. For graduation from the College of Family Living these hours must be combined with enough credits in the college to total 60 hours. Included shall be clothing and textiles, 4 hours; food and nutrition, 4 hours; human development and family relationships, 6 hours.

Following is a suggested program for a combined major in housing and design and in economics and management of the home.

Freshman Year

	Hours
Religion	6
English	9
Phys. Ed. and Health	5
Art 110 or 111	2-4
Chemistry 101, 102	9
or	
Geology 101 and 102, or 110 and 102	4
Physics 104	3
Psychology 111	5
Econ. and Mgt. of the Home 130	3
Family Living 101	1
Food and Nutrition 110	4
Housing and Design 135	3

Sophomore Year

	Hours
Religion	6
Art 121	4
Archaeology 150 or 221	4-9
History 110 or 111	5
Bacteriology 121	4
Economics 101 or	
Agr. Econ. 101	5
Zoology 105 or 164	5
Clothing and Textiles 115 or 260	3-6
Food and Nutrition 210 or 240 ..	3-4
Housing and Design 120	2
Hum. Dev. and Fam. Rel. 160, 210, 211	2-4
Electives (Horticulture and Ind. Ed.)	4-6

Junior Year		Electives (Horticulture, Ind. Ed., Bus. Mgt.)	
	Hours		
Religion	6		
Art 259, 263, 406	4-6		
English (literature)	3		
History 180	5		
Physics 177	4		
Clothing and Textiles			
260, 370	2-5		
Econ. and Mgt. of			
Home 325, 330	3-6		
Housing and Design 335,			
360, 375	5-8		
Hum. Dev. and Fam. Rel.			
360, 361	3-6		
		Senior Year	
			Hours
		Religion	6
		English (literature)	3
		Art 313, 415, 417	2-8
		Clothing and Textiles 370, 430 ..	2-5
		Econ. and Mgt. of Home	
		330, 350	3-6
		Housing and Design 375, 380	3-8
		Electives (Art, Bus. Mgt.,	
		Ind. Ed.)	15-20

Lower Division Courses

120. **Weaving.** (2:1:3) A.W.S. Prerequisite: Art 110 or equivalent. Barlow
Creative design as applied to woven fabrics; experience in weaving methods. A survey of hand-woven fabrics in world cultures.
135. **Household Equipment.** (3:3:0) A.W.S.
Construction, use, care, selection, and placement of household equipment. Advantages of various types of equipment.

Upper Division Courses

335. **Household Equipment.** (3:2:2) A.W.S. Prerequisites: Physics 104 and Housing and Design 135. Vincent
Construction, use, care, and selection of household equipment. Advantages of various types of large equipment. Kitchen planning for efficient use of equipment. Introduction to home lighting.
360. **Home Furnishing.** (2:1:3) A.W.S. Prerequisite: Clothing and Textiles 115. Recommended prerequisites: Art 110, 314, and Clothing and Textiles 260. Barlow
Art related to the home through home furnishings; their care and construction; economics and art applied to their selection. Laboratory work includes making of draperies, slip covers, lamp shades, quilting and weaving.
375. **Housing.** (3:3:0) A.W.S. Recommended prerequisite: Housing and Design 360. Taylor
Housing requirements of families as influenced by their interest, activities, and socio-economic status. Planning of room arrangement and space. Field trip.
380. **Interior Decoration.** (5:5:0) W. Prerequisites: Art 110 and Housing and Design 120 or Clothing and Textiles 260. Taylor
The interior of the home as a creative expression of the family, its needs and individuality. Structure, composition, and design of furniture, floor coverings, and fabrics as related to their placement, use, and care within the contemporary home.

Advanced Undergraduate or Graduate Courses

535. **Performance Testing of Laundry Equipment.** (3:2:3) S.Su. Prerequisites: Clothing and Textiles 260 and Housing and Design 135 or 335. Recommended prerequisites: Clothing and Textiles 560 and Economics and Management of the Home 350. Staff
Experience in experimental investigation dealing with household equipment used in laundering and other cleaning processes.

- 590. Special Problems.** (1-3:0:3-9) A.W.S. Prerequisite: permission of instructor and chairman of department. Staff
Independent study of a special problem in housing and design under the direction of an instructor.

Graduate Courses

- 680. Interior Decoration and Furnishings.** (5:5:0) W.Su. Prerequisites: Art 110, Clothing and Textiles 160 and 370, and Housing and Design 120. Staff
687. Problems in Room Decoration. (3:2:2) Su. Prerequisite: Housing and Design 680. Staff

These courses also count in Housing and Design:

Art 313. Home Planning. (2:2:0)

Art 415, 417. Interior Design. (3:3:0 ea.)

Horticulture 103. Beautifying the Home Grounds. (3:3:0)

Horticulture 112. Flower Arrangement. (3:3:0)

Industrial Education 101. Wood and Metal Finishing. (3:1:5)

Industrial Education 119. Upholstery. (2:0:4)

Human Development and Family Relationships

Professors: Porter (chairman, 1239 SFLC), K. Cannon.
Associate Professor: F. Anderson.
Instructors: Barlow, Jensen, Kunz, Laws, McKelvey, Storey, B. Taylor, O. Tyndall.



Among the purposes of the Department of Human Development and Family Relationships (H.D.F.R.) are the following:

1. To provide opportunities for increased understanding and appreciation of abundant and harmonious living within the family, including its relationship to the church and the community.
2. To help students gain increased self-understanding and appreciation of insight and skills basic to effective human relationships.
3. To provide opportunities for the study of human development and family relationships from infancy through old age which will
 - (a) facilitate the achievement of successful marriage and parenthood.
 - (b) lead to professional competency for those who are interested in vocational opportunities in this field.
4. To provide opportunities for research which will ultimately contribute to increased understanding of human development and family relationships.
5. To provide graduate training leading to a master's degree and Ph.D. degree in human development and family relationships.

The B.Y.U. human development laboratories are among the most modern and up-to-date in the nation. Through the laboratories of the university and the facilities of the community, opportunities are provided for the study of human development and family relationships from infancy through old age.

Outstanding students in H.D.F.R. have the opportunity to enhance their professional training by attending one quarter at the Merrill-Palmer School in Detroit, Michigan, with which the College of Family Living has an affiliation.

Suggestions for a Minor

For a minor in human development and family relationships, a selection of 20 credit hours from the following courses is suggested: H.D.F.R. 160, 210, 211, 261, 322, 360, 361, 405, 412, 510, 570, 572.

Requirements for a Major

For a major in human development and family relationships, a minimum of 40 credit hours in the department is required. A maximum of 10 of the 40 hours may be chosen from a selected list of courses in other departments with consent of the departmental adviser. For graduation from the College of Family Living these hours must be combined with enough credits in the college to total 60 hours for women and 50 hours for men. The completion of 60 hours in the College of Family Living, in addition to meeting the minimum requirements of

40 credit hours in the department, also automatically provides a minor in family living, general. Another minor may be selected if the student so desires, but it is not necessary.

Credits in the College of Family Living shall include

For Women:

	Hours
Clothing and Textiles	4
Economics and Management of the Home	3
Food and Nutrition	4
Housing and Design	3

For Men:

The total for men shall include at least four courses selected from the Departments of Econ. and Mgt. of the Home, Food and Nutrition, and Housing and Design, with a minimum of 3 credit hours in each department and a minimum total of 12 hours. These courses are usually selected from among the following: Economics and Management of the Home 325, Family Finance; Food and Nutrition 115, Essentials of Nutrition; Housing and Design 135, Household Equipment; Housing and Design 375, Housing. Clothing and Textiles 124 (for men), Clothing and Selection and Care may be used if desired.

Suggested Program for Majors

Freshman Year

	Hours
Religion**	6
Freshman English** (determined by placement test)	9
Phys. Ed. and Health 130**	5
Physics, Geology, or Chem.*	9
Psychology 111**	5
Art 110*	2
Cloth. and Tex. 110 (women) or 115 (women)	2 or 3
Food and Nutrition 115* (men) or 110* (men or women)	3 or 4
Family Living 101	1
H.D.F.R. 160	2

H.D.F.R. 210**, 211**	3, 2
Electives	10-15

Junior Year

	Hours
Religion**	6
English (literature)*	6
Psychology 321	3
Econ. and Mgt. of Home 325* or 330	3
Food and Nutrition 245 (women)	3
H.D.F.R. 360*	3
361*	3
412*	4
Electives	10-15

Sophomore Year

	Hours
Religion**	6
Bacteriology 121*	4
Zoology 105* or 164	5
Econ. 101* or Agr. Econ. 101	5
Sociology 111	5
History 170 or 180	5
Humanities and Aesthetics*	3-8
Clothing and Tex. 335 (women)	3
Housing and Design*	3

Senior Year

	Hours
Religion**	6
H.D.F.R. 510**	5
405	3
572**	3
492**, 493**	2, 2
Electives	20-25
*required	
**required year listed	

Specialized Programs

Students specializing in child development and/or nursery education must take also H.D.F.R. 324, 422, 423, 575.

Students specializing in professional work with families must take also H.D.F.R. 440, 461, 580.

Students interested in completing a major in human development and family relationships and also qualifying for an elementary teaching certificate may do so.

**For H.D.F.R. Majors Who Wish to Qualify Also for
Elementary Teaching Certificate**

The successful completion of the following program will (a) provide a major in Human Development and Family Relationships, (b) qualify a student for an elementary teaching certificate with a kindergarten efficiency statement attached, (c) satisfy the general education requirements for the university, and (d) complete the College of Family Living graduation requirements. Students will be prepared to teach nursery school, kindergarten and primary grades.

Freshman Year			
	Hours		
Religion	6	Phys. Ed. 375	2
English (determined by placement tests)	9	Health Ed. 361	3
Phys. Ed. and Health 130	3, 2	Humanities	4
Psychology 111	5	Junior Year	
Physics, geology or chemistry	9		Hours
Art 110	2	Religion	6
Cloth. and Tex.	4	H.D.F.R. 324, 412, 413, 422	3, 1, 6
Food and Nutrition 110 (men or women) 115 (men)	3 or 4	English (literature)	2-4
Sophomore Year		Econ. and Mgt. of Home	3
	Hours	Housing and Design	3
Religion	6	Food and Nutr. 245	3
H.D.F.R. 210, 211, 360, 361	3, 2, 3, 3	Instr. 325, 422	2, 5
Bacteriology 121	4	Ed. Adm. 310	3
Zoology 105 or 164	5	E.R.S. 304	3
Economics 101		Senior Year	
or Agr. Econ. 101	5		Hours
History 170 or 180	5	Religion	6
Music 237	3	English (literature)	2-4
Instr. 340	3	Humanities	4
		H.D.F.R. 423, 510, 572, 575	3, 5, 3, 3
		Instr. 448, 449, 450	6, 6, 3
		Ed. Phil. 415	3

Courses in this department are of value both to men and women.

Lower Division Courses

- 105. The Infant in the Family.** (3:3:0) W. Kunz
Concerned with the infant as a developing individual within the family unit. Readings and class discussions are supplemented with direct experiences with infants and their parents.
- 160. Foundation for Marriage.** (2:2:0) A.W.S. Anderson, Cannon, Laws, McKelvey, Porter
Understanding oneself in relation to the desire for a marriage partner and a family. Consideration of dating, courtship, engagement, and religious, social and economic factors as related to marriage and its early adjustments.
- 210. Child Development.** (3:3:0) A.W.S. Home Study also. (†G-SS; G-R) Pre-requisite: Psychology 111. Recommended prerequisite: Sociology 111. Must be accompanied by H.D.F.R. 211. Jensen, Kunz, Storey, Taylor, Tyndall
Consideration of the growth and development of the child and his relationships with his family, peers, and teachers from infancy through adolescence.
- 211. Observation in the Human Development Laboratories.** (2:1:2) A.W.S. To accompany H.D.F.R. 210. Jensen, Kunz, Storey, Taylor, Tyndall

261. The Latter-day Saint Family. (2:2:0) A.W.S. (G-R)

Anderson, Cannon, Laws, Porter

Place of the family in L.D.S. doctrine and philosophy, together with application of basic religious principles to marriage and family relationships. A comparison of L.D.S. and non-L.D.S. families in time and space.

Upper Division Courses**322. Experience with Children.** (3:2:3) A.W.S. Home Study also. Prerequisite: H.D.F.R. 210. Barlow

Designed to promote growth in developing understanding and skills in working with children, understanding of one's self, and an awareness of group needs through participating with children in the Human Development Laboratories. For non-majors. Laboratory fee. \$3.00.

324. Creative Play in Childhood. (3:3:0) W. Prerequisite: H.D.F.R. 210. Storey

Use of creative play materials in enriching a child's life. Meaning of play and its value in meeting needs of the growing child.

360. Achieving Success in Marriage. (3:3:0) A.W.S. Home Study also. (G-SS; G-R)

Anderson, Bradford, Canning, Cannon, Christensen, Dyer, Porter

Consideration of factors that contribute to successful marriage, maturity, compatibility, and cooperation as basic concepts in marital adjustment. Maximization of family development through healthy parent-child relationships and effective management of family resources. Unique tasks faced by the family in maintaining stability in a dynamic twentieth-century world.

361. Family Relationships. (3:3:0) A.W.S. (†G-SS; G-R) Prerequisites: 9 hours in H.D.F.R., Psychology, and Sociology. Christensen

Inter-personal relationships in the family; their significance in developing values, goals, attitudes and patterns of behavior through the various stages of the family life cycle.

405. Development in Infancy. (3:3:0) A. Prerequisite: H.D.F.R. 210. Kunz

Developmental characteristics during the first eighteen months with implications for guidance and care.

412. Principles of Child Guidance. (4:3:3) S. (†G-SS; G-R) Prerequisite: H.D.F.R. 210. Kunz

Applications of knowledge and understanding of child behavior and psychodynamics of family inter-action to guidance of children. Behavior and guidance principles are studied directly in the human development laboratories. Helpful to parents and prospective parents.

422. Methods and Teaching Experiences in the Human Development Laboratory. 6:2:12) A.W.S. Prerequisites: H.D.F.R. 324, 412, and consent of instructor. Kunz

Experience in teaching and supervising a group of nursery school children. Students arrange with instructor to spend twelve hours a week in the nursery school laboratories.

423. Organization and Planning for Pre-school Programs. (3:3:0)

Consideration of factors involved in the development of pre-school programs. Study of essential procedures in pre-school planning, including housing, equipment, health protection, and food service. Field trip.

440. Family Life in the Middle and Later Years. (3:3:0) W. (†G-SS; G-R) Prerequisite: 6 hours in H.D.F.R., psychology, and sociology. Cannon

Adjustments in middle and later years revolving around physical, emotional, and social changes. Emphasis is placed upon needs that arise from changes in family relationships, living arrangements, and employment. Discussions of public and private provisions designed to meet needs of older people.

- 461. The Family and the Law.** (3:3:0) W. Staff
 Consideration of legal aspects of marriage and family life such as marriage statutes, property rights, separation and divorce, adoption, custody of children, wills, etc.
- 466. Teaching Marriage and Family Relationships in the High School.** (3:3:0) A. Staff
 Prerequisite: 9 hours in H.D.F.R.
 Consideration of problems of high school boys and girls in areas of relationships with parents, siblings, peers, dating, behavior standards, selecting a marriage partner, courtship, love, engagement, adjustment in marriage. Materials which will be useful to the high school teacher and student in thinking through such problems.
- 492. Seminar in Theory and Concepts.** (2:2:0) W. Prerequisite: 15 hours in H.D.F.R. Staff
- 493. Seminar in Evaluating Research.** (2:2:0) S. Prerequisite: 15 hours in H.D.F.R. Staff

Advanced Undergraduate or Graduate Courses

- 510. Advanced Child Development.** (5:3:4) W. Prerequisites: H.D.F.R. 210, 211. Recommended prerequisite: Psychology 321. Kunz, Porter
 Intensive study of application of principles of child development and behavior as they relate to home situation, nursery schools, daycare and centers, and other children's programs. Observation and actual experiences with children from infancy through adolescence.
- 570. Community Factors in the Development of Children and Families.** (3:3:0) S. Prerequisite: H.D.F.R. 210, 361, and Sociology 111. Porter
 Study of community factors in development of children and families. Acquaintance with resources of the community as they relate to the welfare of the child and his family. Field trips to acquaint students with community agencies.
- 572. The Professional Person and Families.** (3:3:0) W. Prerequisites: 9 hours in H.D.F.R., psychology, and sociology. Porter
 Study of ways in which families are important to the professional person who works either directly or indirectly with families; methods of obtaining information about families; kinds of information most valuable to the professional person; effective ways of using information about families.
- 575. Parent Education.** (3:3:0) W. Prerequisite: consent of instructor. Kunz, Porter
 Training for parent education. Basic principles in organization of parent study programs. Formulation and presentation of programs for parents.
- 580. Introduction to Marriage and Family Counseling.** (3:3:0) W. Prerequisite: consent of instructor. Anderson
 Theories and techniques used in marriage and family counseling. Consideration of individual and group counseling as it pertains to the family.
- 590. Readings in Human Development and Family Relationships.** (1-3:1-3:0) A. W.S. Prerequisite: consent of instructor. Staff
 Discussions and reports of current readings in this field. Open to students who have completed fifteen hours of human development and family relationships.
- 592. Seminar.** (2:2:0) S. Staff
 Analysis and evaluation of selected research reports in human development and family relationships.

595. **Special Topics in Human Development and Family Relationships.** (1-3:1-3:0) Staff
A.W.S.
Individual study for qualified students majoring in human development and family relationships upon consultation with the instructor and the chairman of the department.
596. **Research Problems and Methods in Human Development and Family Relationships.** (3:3:0) A. Cannon
Analysis of research methods used in human development and family relationships. Students have active experience in formulating a research project.

Graduate Courses

611. **Current Concepts and Research in Child Development.** (3:3:0) A. Porter
661. **Dynamics of Family Interaction.** (3:3:0) W. Prerequisite: H.D.F.R. 360.
Porter
663. **Critical Problems in Family Life.** (3:3:0) W. Prerequisite: H.D.F.R. 361.
Cannon
664. **Current Concepts and Research in Family Relationships.** (3:3:0) W.
Porter
666. **Problems of Teaching Marriage and Family Relationships in High School.** (3:3:0) Su. Prerequisite: a minimum of 2 years of teaching experience. Staff
667. **Problems of Teaching Marriage and Family Relationships in College.** (3:3:0) Staff
Su.
685. **Developmental Use of Play Experiences.** (3:3:0) S. Prerequisite: consent of instructor.
Christensen
- 692, 693. **Seminar.** (2:2:0 ea.) A.W. Staff
697. **Independent Research.** (1-3:1-3:0) A.W.S. Staff
699. **Thesis for Master's Degree.** (1-6:1-6:0) A.W.S. Staff
780. **Marriage and Family Counseling.** (3:3:0) S. Prerequisites: E.R.S. 625, and consent of instructor.
Anderson
781. **Case Analysis in Marriage Counseling.** (3:3:0) Prerequisite: H.D.F.R. 780.
Anderson
- 785, 786, 787. **Internship in Marriage Counseling.** (3:1:6 ea.) A.W.S. Prerequisite: H.D.F.R. 780 and 781.
Staff
792. **Seminar in Marriage Counseling.** (3:3:0) S. Staff
794. **Special Topics in Human Development.** (1-3:1-3:0) A.W.S.
Anderson, Cannon, Christensen, Porter
795. **Special Topics in Family Relationships.** (1-3:1-3:0) A.W.S.
Anderson, Cannon, Christensen, Porter
797. **Doctoral Candidate Research.** (3-6:3-6:0) A.W.S. Staff
799. **Dissertation for the Ph.D. Degree.** (Arr.) A.W.S. Staff

A maximum of ten credit hours may be selected to apply toward a major in H.D.F.R. from the following courses:

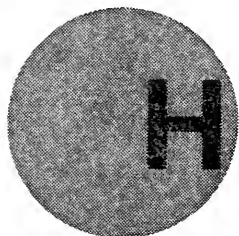
- Instruction 325. **Arts and Crafts for Early Childhood.** (2:4:0)
- Instruction 340. **Children's Literature.** (3:3:0)

- Educational Research and Services 540. Statistical Methods. (3:3:0)**
Educational Research and Services 541. Advanced Statistics. (3:3:0)
Nursing 288. Family Health and Home Nursing. (2:1:3)
Psychology 321. Psychology of Adolescence. (3:3:0)
Psychology 340. Mental Health. (3:3:0)
Psychology 350 or Sociology 350. Social Psychology. (3:3:0)
Psychology 445. Exceptional Children. (3:3:0)
Psychology 550. Psychology of Personality. (4:4:0)
Recreation 371. Planning for Family and Neighborhood Recreation. (2:2:0)
Sociology 403. Marriage and the Family in American Society. (3:3:0)
Sociology 460. Cultural Anthropology. (3:3:0)

Ralph A. Britsch, in charge (308 McKay)

(An interdepartmental area only.)

Humanities



Lower Division Course

101. An Introduction to the Humanities. (5:5:0) A.W.S. (G-HA)

Monson, Staff

A study of the forms of creative expression as revealed in literature, painting, sculpture, architecture, and music. (Two hours' credit from this class may be applied toward fulfilling the general education requirement in literature. The three remaining hours may be counted toward fulfilling the humanities requirement, but the student must also take courses in a third department from those listed under humanities and aesthetics.)

Upper Division Course

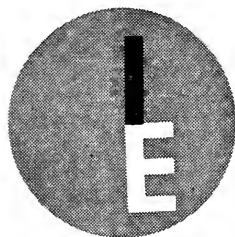
459. Lyric Theatre. (3:3:0) Su. (G-HA)

Staff

Personnel for summer music dramas, providing experience and direction in music, acting, dance, and theatre arts.

Industrial Education

Professor: Snell (emeritus).
Assistant Professors: Gamett, McArthur.
Instructors: Pierce (chairman, 368 ESC), McKinnon.



Majors are offered in industrial arts education and vocational industrial education. Minors are offered in industrial education and drawing.

Credit in shop courses and drawing is given on the basis of three hours for nine hours application each week during the quarter.

For a major, a sequence of courses must be followed as outlined by the department.

REQUIREMENTS FOR THE INDUSTRIAL ARTS EDUCATION CERTIFICATE

Students who plan to become teachers are encouraged to seek advisement early concerning the secondary teacher education program. Any attempt to complete one phase ahead of schedule complicates the smooth functioning of the program. Students who do not begin professional preparation until the senior year will find it necessary to devote a part of the fifth year to complete the program.

General Education Requirements

See "General Education Requirements" toward the front of this catalog. These requirements are the same for all students who graduate from the university. They should be distributed throughout the four-year program.

Major Requirements

Teaching Majors (61 quarter hours):

Drawing*, 8 hours: Drawing 102, 109, 113.

Woodwork, 12 hours: Ind. Ed. 101, 103, 104, and 3 hours selected from Ind. Ed. 302, 303, 304.

Metalwork, 12 hours: Ind. Ed. 120, 125, 130, 140.

Craftwork, 8 hours: Ind. Ed. 260, 464, 466, and 2 hours selected from Art 263, 259, 366.

Graphic Arts, 3 hours: Ind. Ed. 280.

Electricity, 6 hours: Ind. Ed. 360, 365.

Shop Maintenance, 3 hours: Ind. Ed. 301.

Shop Planning and Organization, 3 hours: Ind. Ed. 370.

Guidance Services in the Public Schools, 3 hours: E.R.S. 550.

Audio-Visual Education, 3 hours: Instr. 406.

*If drawing is selected as a teaching minor, 8 elective hours must be taken and drawing omitted from the major requirements.

Teaching Minors:

Drawing, (25 quarter hours): Drawing 102, 109, 113, 204, 245, 246, 248, 341, 380.

Ind. Arts Education, (24 quarter hours): Ind. Ed. 101, 103, 140, 260, 360, and Drawing 102, 113, and 3 elective hours in Ind. Ed. or Drawing.

Educational Requirements for Certification

See requirements as listed by the College of Education.

Note: Ind. Ed. 377 and 479 must be taken in the Industrial Education Department, not in the Department of Instruction.

Vocational Industrial Education**Option I. Major (85 hours)**

Areas	Required Hours	Suggested Courses
Metalwork	20	Ind. Ed. 120, 125, 130, 140, 150, 320, 330, 466.
Electricity	6	Ind. Ed. 360, 365.
Woodwork	29	Ind. Ed. 101, 103, 104, 105, 108, 301, 302, 303, 304, 308, 309.
Mathematics	12	Math 105, 106, 107.
Surveying	4	C. E. 320.
Related Ind. Arts	14	Ind. Ed. 119, 306, 307, 319, 401, 403.

Option II. Major (85 hours)

Areas	Required Hours	Suggested Courses
Drawing	15	Drawing 102, 113, 245, 341, 380.
Electricity	6	Ind. Ed. 360, 365.
Metalwork	12	Ind. Ed. 120, 125, 130, 140.
Woodwork	24	Ind. Ed. 101, 103, 104, 301, 302, 303, 304, 308, 309.
Mathematics	12	Math 105, 106, 107.
Surveying	4	C. E. 320.
Related Ind. Ed.	12	Ind. Ed. 119, 306, 307, 330, 401, 403.
Minor: Related Field	20	

Non-Teaching Minors**Suggested Courses****Option I. Industrial Education (20 hours)**

Drawing, 6 hours: Drawing 102, 113.

Ind. Ed.: 14 hours selected from 101, 103, 104, 119, 120, 125, 130, 140, 360, 365.

Option II. Drawing (24 hours)

Drawing 102, 109, 113, 204, 245, 246, 248, 341, 380.

INDUSTRIAL EDUCATION**Lower Division Courses**

99. Shop Mathematics. Non-credit course.

101. Wood and Metal Finishing. (3:1:5) A.W.

Staff

Preparation of surfaces for the application of finishes. Staining, painting, varnishing, lacquering, polishing, etc. Use of brush and air gun.

103. Woodwork. (3:1:5) A.W.S.

McKinnon

Care and use of hand and machine woodworking tools applied in fundamental principles of sawing, joining, fitting, and fastening. Required of all majors and minors in industrial arts.

104, 105. Woodwork. (3:1:5 ea.) W.S. Prerequisite: Industrial Ed. 103.

McKinnon

Use of hand and machine tools in the construction of fine furniture. Drawings, specifications, and cost estimates of all projects must be submitted.

108. Wood Turning. (2:0:4) W.S.

McKinnon

Exercises and projects in spindle and face plate turning.

119. **Upholstery.** (2:0:4) A.W.S. Gamett
Typical forms of upholstery, including foundations with and without springs.
120. **Acetylene Welding.** (3:1:5) A.W.S. Staff
Fusion welding of mild steel and brazing.
125. **Electric Welding.** (3:1:5) A.W.S. Staff
Fusion welding of mild steel and oxy-acetylene cutting.
130. **Machine Practice.** (3:1:5) A.W.S. McArthur
Use of hand tools in bench work, with engine lathe, drill press and grinding operations.
140. **Sheet Metal and Ornamental Iron.** (3:1:5) A.S. Staff
Projects in sheet metal, ornamental iron work, and pattern layout.
150. **Forge Practice.** (3:1:5) W. (Not offered this year.) Staff
Fundamental forge operations including bending, shaping, welding, and tempering.
205. **Farm Machinery.** (2:0:4) S. (Not offered this year) Staff
Care and maintenance of general farm equipment.
207. **Gas and Diesel Engines.** (3-5:1:5-9) (Not offered this year) Staff
Designed for agricultural students. Care and maintenance of gas and diesel engines.
260. **Recreational Handicrafts.** (1-3:0:2-6) A.W.S. McArthur
Students may work in a selected area according to their interests: wood-work, metalwork, plastics, lapidary work, etc. Course is open to all students interested in leisure time activities.
270. **Graphic Arts.** (3:2:4) Staff
Fundamentals of the Printing Industry such as type-setting, book-binding, etc.
301. **Shop Maintenance.** (3:1:5) W. Staff
Care and maintenance of tools and machines.
- 302, 303. **Cabinet Construction.** (3:1:5 ea.) W.S. Prerequisite: Industrial Ed. 103, 104. McKinnon
304. **Mill Work.** (3:1:5) S. Prerequisites: Ind. Ed. 103, 104; Drawing 113. Staff
Doors, windows, moldings, and other mill practices are stressed.
306. **Standard Construction Methods.** (3:3:0) S. Taught alternate years. McKinnon
Theoretical aspects of building, location, soil conditions, footings, material, and equipment.
307. **Estimating.** (3:3:0) S. Taught alternate years. Prerequisite: Drawing 244. Staff
Interpreting plans and specifications. Methods of estimating and figuring costs of materials and labor.
308. **Carpentry.** (3:1:5) A. Prerequisites: Drawing 102 or 113. McKinnon
Practical problems in forming framing, sheathing, and insulation.
309. **Carpentry.** (3:1:5) W. McKinnon
Practical problems in interior and exterior trim.
319. **Upholstery.** (2:0:4) A.W. Prerequisite: Ind. Ed. 119. Gamett
Advanced work in upholstery.
320. **Welding.** (3:1:5) A.W.S. Prerequisites: Ind. Ed. 120 and 125. Staff
Advanced work in acetylene and electric welding.

- 330. Machine Practice.** (3:1:5) A.W.S. Prerequisite: Ind. Ed. 130. McArthur
Operations in the use of the lathe, shaper, and milling machines.
- 332. Machine Shop Production.** (3:1:6) Staff
Construction and assembly of a basic machine with emphasis on production methods.
- 350. Pattern Making and Foundry Practice.** (2:0:4) W. Prerequisite: Ind. Ed. 103. Staff
Principles of pattern making taught through wood patterns and sand castings of machine parts.
- 360. Electricity.** (4:2:4) W.S. McArthur
Fundamentals of electricity, including DC and AC motors and generators.
- 365. Electricity.** (2:1:3) W. McArthur
Simple electrical circuits in homes and farm buildings.
- 370. Shop Planning and Organization.** (3:3:3) A. McArthur
Planning and organizing the physical plant for different types of school shops.
- 377. Secondary Teaching Procedures.** (3:3:0) S. Prerequisite: E.R.S. 305. Gamett
Classroom procedures and objectives of industrial arts. See Instruction 377.
- 401. Masonry.** (2:1:5) S. Staff
Practice in laying up cinder or concrete blocks into simple walls as needed for farm structures.
- 403. Plumbing.** (2:1:5) A. McKinnon
Plumbing and plumbing layout.
- 432. Heat Treating and Metallurgy.** (5:3:6) S. Staff
A study of the properties of metal and effects of temperature change.
- 464. Plastics.** (2:1:3) S. Staff
Fundamental hand and machine operations used in working plastics.
- 466. Art Metal Crafts.** (2:0:4) Staff
Projects in metal. Hand tooling in brass, copper, and aluminum; soldering and spinning.
- 479. Objectives and Practices in Teaching Industrial Arts.** (12:3:27) A.W.S. Gamett
Student Teaching. Material will be prepared and principles and objectives of the Industrial Arts program will be formulated and discussed.
- 490. Special Problems in Industrial Arts.** (Arr.) A.W.S. Staff
Credit and subject matter to be arranged.

DRAWING

Lower Division Courses

- 102. Blue Print Reading.** (3:2:2) A.W.S. Pierce
A fundamental course in blue print reading. Covers instruction necessary to understand the purposes and the relation between specifications and drawings as used in industry.
- 106. Architectural Blue Print Reading.** (3:2:2) A.W.S. Staff
- 107. Free-hand Lettering.** (2:0:4) A.W.S. Home Study also. Staff
Practice in lettering as applied in engineering and architectural drawing.
- 109. Industrial Arts Design.** (2:2:0) A.W. Pierce
Fundamental elements and processes of design in industrial arts.

113. **Elementary Drawing.** (3:1:5) A.W.S. Home Study also. Prerequisite: Drawing 102. Pierce
Care and use of instruments, lettering, applied geometry, and orthographic projection.
204. **Electrical and Sheet Metal Layout.** (2:1:3) S. Prerequisite: Drawing 102. Pierce
Intersections, developments and triangulation; electrical symbols, lighting and service layouts.
244. **Architectural Drawing.** (3:1:5) A.W. Home Study also. Prerequisite: Drawing 102 or equivalent. Snell
Drawing of architectural details of footings, walls, doors, windows, cornices, etc.
245. **Architectural Drawing.** (3:1:5) A. Home Study also. Prerequisite: Drawing 113 or equivalent. Snell
Small-house plans, elevations, sections and details.
246. **Descriptive Geometry.** (3:1:5) S. Prerequisite: Drawing 113 or equivalent. Snell
Principles relating to point, line, plane, cylinder, cone, and double curved surfaces, etc. with application to practical problems.
248. **Instrumental Perspective, Shades and Shadows.** (3:1:5) A.W.S. Home Study also. Prerequisite: Drawing 245. Snell
Theory and application of methods of drawing architectural perspectives with shades and shadows.
249. **Rendering.** (2:1:3) A.W.S. Prerequisite: Drawing 248. Snell
Wash rendering practice plates and rendering of architectural elements.

Upper Division Courses

301. **Pipe Drafting.** (3:1:5) Staff
Design and layout of piping systems.
- 341, 342, 343. **Architectural Design.** (3:1:5 ea.) A.W.S. Prerequisite: Drawing 245 or equivalent. Snell
Topographical symbols, mapping and plotting.
380. **Mechanical Drawing.** (3:1:5) S. Prerequisite: Drawing 113. Pierce
382. **Machine Fabrication Design.** (3:1:5) Prerequisite: Drawing 380. Staff
Machine fastenings, technical sketching, working drawings, detailing, jigs and fixtures.
401. **Production Illustration.** (3:1:5) Prerequisite: Drawing 380. Staff
Application of pictorial drawing to problems of assembly in industry.
444. **Structural Fabrication Design.** (3:1:5) Prerequisites: Mathematics 107, Drawing 380. Staff
Drawing of plans for framing and erection in steel, wood and concrete.
495. **Special Problems in Drawing.** (1-3:0:6) A.W.S. Staff
Credit and subject matter to be arranged.

These courses also count in Industrial Education:

- Art 110. **Theory and Practice of Design.** (2:2:2)
- Art 263. **Crafts.** (2:2:4)
- Art 259. **Ceramics.** (2:2:4)
- Art 366. **Metalcraft and Jewelry.** (2:2:2)

Professor: Callahan.

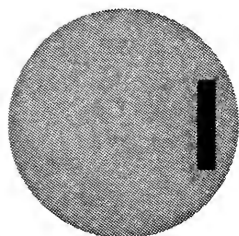
Associate Professors: D. C. Christensen (chairman, 153 McKay), Bauer, J. Campbell, Daines.

Assistant Professors: L. C. Alder, H. Babcock, Berryessa, L. Christensen, Crnkovic, Flandro, Hammond (emeritus), Ord, Shirts, Tyndall, Wilcox.

Instructors: Jones, Memmott, Utley, M. Wilson.

Laboratory and Methods Teachers: Bennett, Brown, Carlisle, Clark, Darley, Davidson, Gagon, Hogan, Miller, Rasband, Richins, Sandberg, Williams.

Instruction



The offerings in this department are intended to assist teachers in the development of the skills involved in the act of instruction, whether it be in or out of the classroom, at any level or in any subject-matter area of education. Courses sponsored exclusively by this department are usually limited to those in which methodology of teaching or problems in organizing materials for teaching are the dominant content.

The offerings in instruction are presented under the following divisions: General, Elementary, Secondary, College, and Special Study.

GENERAL INSTRUCTION

Courses listed under "General Instruction" serve the needs of other divisions within the Department of Instruction.

Upper Division Courses

- 300. Teaching in the Church.** (2:2:0) A.W.S. (G-R) Staff
Equivalent to the Church Teacher Training Program. Does not apply to state certification.
- 301. Basic Concepts of Teaching.** (2:4:0) A.W.S. D. Christensen, Daines, Staff
For potential elementary and secondary teachers, regardless of level or field. The content is an exposition of a simple and operational concept of teaching. Briefly, the framework consists of these three elements: the objective, the learning experience, and receptiveness to learning.
- 405. Analysis of Teaching.** (3:3:0) A.W.S. Staff
Course designed for both prospective elementary and secondary teachers. Analysis of teaching plans and experiences. Also the discussion of the use of principles to analyze and clarify concepts and practices in teaching.
- 406. Teaching Materials Laboratory (Audio-Visual Aids).** (3:3:2) A.W.S. Gagon, Memmott
Introduction to and production of audio-visual aids.

Graduate Courses

- 605. Development of Instructional Materials.** (3:3:1) W. Prerequisite: Instruction 406. Gagon, Memmott, Staff
- 608. Radio and Television in Education.** (2:2:1) S. Tyndall

610. **Advanced Student Teaching for Experienced Teachers.** (2-8:1:4-20) A.W.S. Prerequisite: field experience plus approval of special committee and chairman of department. Staff
Application should be made in advance.
612. **Administration and Supervision of Student Teaching.** (3:3:0) A.W.S. Callahan, D. Christensen, Flandro, Tyndall, Staff
- 614, 615, 616. **Analysis of In-Service Problems.** (2-5:2-5:0) A.W.S. Staff

ELEMENTARY INSTRUCTION

Upper Division Courses

320. **Basic Classroom Procedures.** (5:5:0) A.W.S. Daines, Staff
Designed for potential elementary teachers. Identification of teacher and pupil activities required for conceptual learning and for the following related types of subject-matter and teaching: symbolic, performance ability, and habit.
321. **Reading and Arithmetic.** (5:5:0) A.W.S. Babcock, Daines, Ord, Staff
For prospective elementary teachers. This course is an extension of Instruction 320, with special application to reading and arithmetic.
324. **Arts and Crafts for Elementary Teachers.** (2:4:0) A.W.S. Alder, Staff
Handicrafts for teachers of children in elementary schools.
325. **Arts and Crafts for Early Childhood.** (2:4:0) A.W.S. Alder, Staff
Handicrafts for teachers of children in kindergarten and first grade.
338. **Manuscript Writing for Elementary Teachers.** (2:4:0) A.W.S. Staff
A course designed to develop teachers' skills in manuscript writing, construction of charts, and teaching children to write.
340. **Children's Literature.** (3:3:0) A.W.S. Home Study also. Hammond, Thorne, Staff
Evaluation of significant books, past and present, that meet children's needs.
345. **Basic Classroom Procedures and Participation.** (4:3:4) A.W.S. Prerequisite: E.R.S. 305. Babcock, Ord, Rasband, Staff
Open only to students who began the 1958 program prior to Sept. 1959. Organizing the classroom, pupil accounting, grouping, programming, location and use of teaching materials. Students will be assigned as assistants to teachers in the laboratory of public schools four hours per week. Laboratory fee \$15.00.
346. **Curriculum and Methods in Elementary School Social Studies and Science.** (4:4:2) A.W.S. Prerequisite: Instruction 447. Babcock, Brown, L. Christensen, Daines, Ord
Directed observation to be arranged.
422. **Early Childhood Education Curriculum.** (3-5:3-5:0) A.S. Prerequisite: Instruction 345. Campbell, Staff
Principal attention given to kindergarten and first grade. Recommended for H.D.F.R. majors. Students registered in elementary instruction take sections of this course for which three quarter hours of credit are given. Students registered in H.D.F.R. must take sections of this course for which five quarter hours of credit are given.
447. **Curriculum and Methods of Elementary School Language Arts and Arithmetic.** (4:4:2) A.W.S. Prerequisite: Instruction 345. Babcock, Brown, Campbell

- 448. Elementary Student Teaching.** (6:0:20) A.W.S. Prerequisite: Instruction 447. To be taken concurrently with Instruction 346. Staff

For seniors, third quarter juniors, or graduate students. A full half-day must be reserved for assignment in the public schools. Laboratory fee \$15.00. Seminar on student-teaching problems to be held weekly.

- 449. Student Teaching.** (6:0:20) A.W.S. Staff

Students spend a five-week block in a full-day teaching situation in the public schools. This may be either the first or last half of the quarter. The remaining half quarter will be spent in required "block" classes. Laboratory fee \$15.00.

Advanced Undergraduate or Graduate Courses

- 529. Directed Observation in Elementary Schools.** (3:2:6) A.W.S.

Daines, Staff

For experienced teachers or secondary majors who wish to obtain an elementary certificate.

- 534. Overview of Elementary Instruction.** (5:5:2) W. (Not for Elementary Instruction Majors.) Daines, Staff

Designed for secondary teachers and speech majors who wish to obtain an elementary certificate. Also recommended as a refresher for teachers in-service.

Graduate Courses

- 622. Advanced Study in Early Childhood Education.** (3:3:0) Arr.

Campbell, L. Christensen

- 623. Science in the Elementary School.** (3:3:0) S. Babcock, Berryessa, Ord

- 624. Arts and Crafts for Elementary Teachers.** (2:2:2) Arr. Alder, Andrus, Staff

- 626. Arts and Crafts for the Handicapped.** (2:2:2) W. M. Wilson, Staff

- 631. Curriculum Development in the Elementary School.** (3:3:0) W. (Not open to students who have taken Instr. 656.) Campbell, Daines, Ord

- 633. Creative Arts in the Elementary School.** (2:2:2) A. Alder, Andrus, Staff

- 635. Social Studies in the Elementary School.** (3:3:0) A. Ord, Staff

- 641. Language Arts in the Elementary School.** (3:3:0) W. Babcock, L. Christensen, Ord, Staff

- 642. Reading in the Elementary School.** (3:3:0) W. Daines, Staff

- 644. Arithmetic in the Elementary School.** (3:3:0) W. Babcock, Berryessa

- 646. Development of Instructional Methods in the Elementary School.** (3:3:0) W. (Not open to students who have taken Instruction 676.) Daines

SECONDARY INSTRUCTION

Upper Division Courses

- 354. Methods and Materials of Instruction in Secondary Schools.** (5:5:0) A.W.S. Staff

A course designed to meet certificate renewal needs of secondary teachers in Idaho.

- 377. Secondary Teaching Procedures.** (3:3:3) or (4:4:3) A.W.S. Prerequisite: E.R.S. 305 or Instruction 301. Callahan, D. Christensen, Flandro, Tyndall, Utley, Wilcox, Staff

Identification of teacher and pupil activities required for conceptual learning and for each of the following types of subject-matter and teaching: symbolic, performance ability, and habit. Also, lectures, demonstrations, and participation in non-instructional activities at a high school. A laboratory fee of \$15.00 is charged.

- 478. Unit Planning and Teaching.** (4:3:5) A.W.S. Prerequisite: Instruction 377. Callahan, D. Christensen, Flandro, Utley, Wilcox, Staff

Lectures, demonstrations, and limited participation in instructional activities. A laboratory fee of \$15.00 is charged.

- 479. Secondary Student Teaching.** (7-12:1:20-80) A.W.S. Callahan, D. Christensen, Flandro, Tyndall, Utley, Wilcox, Staff

This experience is designed to develop readiness for full comprehension of the principles of teaching and the remaining subject-matter and education courses. Special attention is given to on-the-job lesson planning and unit organization. A laboratory fee of \$15.00 is charged.

Determination of a specific plan to be followed must be made in consultation with an adviser from secondary education. An application for a specific assignment must be filed with the Certification Office three months in advance of receiving an assignment. Student teachers are expected to do much responsible teaching, participate in co-curricular activities, and keep in close contact with the faculty and students in a public school as well as to participate in seminars and conferences with their supervisors. During this quarter students must limit their total load to 16 hours.

Plan B. A full day of off-campus student teaching for seven hours credit, away from Utah County, for a period of five weeks to be followed by five weeks of on-campus study during which the student will take such courses as Administration 310, Educational Philosophy and Programs 415, and Instruction 450; or students may teach full days for a complete quarter and receive 12 hours credit.

Plan C. Supervised teaching in a Utah County public secondary school for a full quarter on a half-day (four hours a day) basis for 7 hours credit or a full quarter full day for 12 hours credit.

Graduate Courses

- 656. Curriculum Development in the Secondary School.** (3:3:0) A. (Not open to students who have taken Instruction 631.) Callahan, Christensen, Flandro, Staff

- 659. Senior High School Curriculum Workshop.** (3:3:0) S. Callahan, Christensen, Flandro, Staff

- 661. Junior High School Curriculum Workshop.** (3:3:0) W. Staff

- 663. Directing Out-of-Class Activities in Secondary Schools.** (3:3:0) S. Callahan, Christensen, Flandro, Rigby

- 667. Teaching of Reading in the Secondary Schools.** (3:3:0) W. Staff

- 670. Teaching Mathematics and Science in Secondary Schools.** (3:3:0) W. Staff

- 672. Teaching Social Studies in Secondary Schools.** (3:3:0) S. Staff

- 673. Teaching Speech in Secondary Schools.** (3:3:0) W. Staff

- 676. Development of Instructional Methods in the Secondary School.** (3:3:0) S. (Not open to students who have taken Instruction 646.) Staff

COLLEGE INSTRUCTION

Graduate Courses

- | | |
|--|-------|
| 682. The Junior College. (5:5:0) A. | Staff |
| 684. Methods of Higher Education Instruction. (4:4:2) W. | Staff |
| 685. Directed Teaching in Higher Education. (6:1:5) Prerequisite: Instruction 684. | Staff |

SPECIAL STUDY

Upper Division Courses

- | | |
|--|-------|
| 490, 491. Seminar. (1-3:1-3:0 ea.) A.W.S. | Staff |
| 493, 494. Independent Reading. (1-3:1-3:0 ea.) A.W.S. | Staff |
| 496, 497. Independent Research. (1-3:1-3:0 ea.) A.W.S. | Staff |

Graduate Courses

- | | |
|--|-------|
| 690, 691. Seminar. (1-3:1-3:0 ea.) A.W.S. | Staff |
| 693, 694. Independent Reading. (1-3:1-3:0 ea.) A.W.S. | Staff |
| 696, 697. Independent Research. (1-3:1-3:0 ea.) A.W.S. | Staff |
| 698. Field Project. (Arr.) Arr. | Staff |
| 699. Thesis for Master's Degree. (Arr.) Arr. | Staff |

These courses also count in Instruction:

- Art 668. Teaching Art in Secondary Schools. (3:3:0)
- English 669. Teaching English in Secondary Schools. (3:3:0)
- Health Education 310. Driver Education and Training for High School Teachers. (2:2:1)
- Health Education 325. Materials and Methods in Safety Education. (2:2:0)
- Health Education 361. Health Education for Teachers. (3:3:0)
- Homemaking Education 666. Teaching Home Economics in the Secondary Schools. (3:3:0)
- Journalism 674. Teaching Methods in Journalism. (3:3:0)
- Library Science 355. Classification and Cataloging. (5:5:0)
- Library Science 363. Library Science for Teachers and Administrators. (3:3:0)
- Library Science 370. Introduction to Bibliography. (3:3:0)
- Library Science 563. Modern Library Practices. (3:3:0)
- Library Science 565. Selection and Use of Library Materials for the Elementary School. (3:3:0)
- Library Science 567. Selection and Use of Materials for the Secondary School. (3:3:0)
- Library Science 571. Bibliography of the Sciences. (3:3:0)
- Library Science 572. Bibliography of the Humanities. (3:3:0)
- Library Science 573. Bibliography of the Social Studies. (3:3:0)
- Library Science 590. History of Books and Development of Libraries in Our Civilization. (3:3:0)

Library Science 650. Problems in Acquisition and Organization of Library Materials. (3:3:0)

Music 615. Vocal Methods, Materials, and Resources. (3:3:0)

Music 616. Instrumental Methods, Materials, and Resources. (3:3:0)

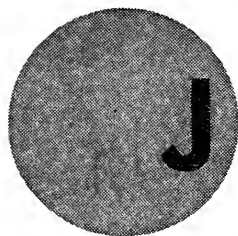
Recreation 331. Theory of Play. (3:3:0)

Professor: O. R. Smith, (chairman, 160 SSC).

Assistant Professor: Butterworth.

Instructors: Burnett, Carle, L. H. Curtis, R. N. Richards*.

Journalism



The curriculum of the Department of Journalism is designed to provide specialized training for students preparing to enter the following fields of journalism: newspaper and news service newsgathering and editing; radio and television news and advertising; public relations and industrial journalism; and teaching of journalism in secondary schools. Through courses 101 and 305 the department also contributes toward the general education offerings in the field of humanities and aesthetics. Graduate courses are offered leading to the master's degree in journalism.

A student who elects to major in journalism will pursue one of the course sequences listed below:

I. Editorial Journalism: minimum of 40 credit hours in journalism including courses 211, 212, 305, 307, 311, 312, 321, 322, 323, 490. Recommended electives are courses 101, 315, 330.

Typical Schedule of Courses

Freshman and Sophomore Years	
	Hours
General Education (73 hours)	
Religion	12
Physical Science (incl. Phys. 177)	9
Biological Science	8
English (composition)	9
Phys. Ed., Health	5
Humanities (incl. Pol. Sci. 110)	15
Social Sci. (incl. Hist. 121) ..	15

Major Field (13 hours)	
Journalism 101, 211, 212	9
Physics 177	4
Minor Field and electives (7 hours)	

Junior and Senior Years	
	Hours
General Education (12 hours)	
Religion	12
Major Field (28 hours)	
Journalism 305, 307, 311, 312, 315, 321, 322, 323, 330, 490	30
Minor Field and electives (53 hours)	

II. Radio-Television Journalism: minimum of 40 credit hours in journalism, including Journalism 101, 211, 307, 490, Speech 241, and 14 hours selected from Journalism 212, 305, 341, 346, 347, 348, 351, 352, 494; Instruction 307. Students who wish to specialize in broadcasting advertising should elect journalism 351, 352. Students who wish to specialize in news broadcasting should elect Journalism 212, 346, 347, 348.

*On leave 1959-60.

Related courses in other departments recommended for radio-television majors are Physics 103, Speech 251, 255, 346, 449, 452, 455.

Typical Schedule of Courses

Freshman and Sophomore Years		Speech 241		3
	Hours	Minor Field and electives		8
General Education (73 hours)				
Religion	12	Junior and Senior Years		
English (composition)	9		Hours	
Phys. Ed., Health	5	General Education (12 hours)		
Physical Science	9	Religion		12
Biological Science	8	Major Field (28 hours)		
Soc. Sci. (incl. Pol.		Journalism 307, 341, 346, 347,		
Sci. 110)	15	351, 352, 490		23
Humanities (incl. Hist. 121) ..	15	Journalism electives		5
Major Field (12 hours)		Minor Fields and other electives		
Journalism 101, 211, 212	9	(53 hours)		

III. Public Relations and Industrial Journalism: minimum of 40 credit hours in journalism including courses 101, 211, 212, 330, 490, 497, 561, 564, and 566. Recommended electives are courses 305, 311, 312, and 571.

The student should select a composite minor of 30 or more hours from at least two of the following course groups: Business Management 340, 347, 420, 455, 458, 469; Economics 101, 102, 111, 274, 331, 332, 461, 431; Psychology 111, 205, 330, 335, 337, 350, 370; Sociology 111, 125, 316, 320, 350, 446; Speech 101, 103, 122, 305, 401, 403. (At least 20 hours should be concentrated in one or two departments.)

Typical Schedule of Courses

Freshman and Sophomore Years		Major Field (9 hours)		
	Hours	Journalism 101, 211, 212		9
General Education (73 hours)				
Religion	12	Junior and Senior Years		
English (composition)	9		Hours	
Phys. Ed., Health	5	General Education (12 hours)		
Physical Science	9	Religion		12
Biological Science	8	Major Field (31 hours)		
Soc. Sci. (incl. Pol.		Journalism 330, 490, 497, 561,		
Sci. 110)	15	564, 566		16
Humanities (incl. Hist. 121) ..	15	Journalism electives		15
		Minor Fields and other electives		
		(50 hours)		

Preparation for Teaching

Students who plan to teach journalism in secondary schools may elect either a conventional major in Journalism or a composite major in language arts with 36 hours of credit in Journalism as the dominant field. The 36 hours prescribed for either major are listed by the College of Education under the Language Arts area of Subject-Matter Preparation of Secondary School Teachers.

Additional Course Recommendations

The programs listed above may be modified to allow for previous experience or individual needs upon permission of the head of the department. For especially qualified students individual programs may be outlined in photo journalism, advertising, or community journalism.

Journalism majors are advised to obtain as broad a background as possible in the social sciences. No more than 55 credit hours in journalism should be included in the undergraduate program unless more than 186 hours are presented for graduation with the baccalaureate degree. Two years' study in a foreign language are recommended. Majors must have ability to operate a typewriter.

In filling the American history and government requirement of the university it is recommended that journalism majors take Political Science 110 and either History 121 or Economics 274. These two courses should be taken in place of History 170 or 180.

Requirements for a Minor

Twenty hours in journalism, selected from one of the course sequences for majors listed above are required for a minor.

The following are suggested as minors for students who major in journalism: business management, clothing and textiles, economics, English, food and nutrition, geography, history, languages, political science, psychology, sociology, or speech.

Lower Division Courses

- 101. Introduction to Mass Communications.** (3:3:0) A.W.S. Home Study also. Staff
(G-HA)
Survey of historical, social, cultural, functional, and vocational aspects of journalism, with emphasis on the layman as a "consumer" of news.
- 211. News Writing.** (3:3:2) A.W. Home Study also. Prerequisite: English 113 or equivalent, or permission of department head. Staff
Newspaper style and elements of news; practice in gathering and writing news stories. Use of typewriter required.
- 212. Reporting.** (3:1:6) W.S. Prerequisite: Journalism 211. Staff
News gathering techniques; practice in handling special assignments such as sports, society, politics, conventions, and police news.

Upper Division Courses

- 305. History of Mass Communications.** (5:5:0) S. Home Study also. (G-HA) Staff
Development of American journalism from its colonial beginnings to the present in relation to political, social, and economic history of the times. Emergence of media of radio and television.
- 307. Law of Mass Communications.** (3:3:0) A. Staff
Legal limits and privileges of press and radio; libel, contempt, public documents, copyright, and right of privacy. Problems in avoiding criminal and civil liabilities.
- 311. Reporting Workshop.** (3:1:9) A.W.S. Prerequisite: Journalism 212. Staff
Supervised work in regular staff positions on the campus newspaper, involving writing of news and feature copy. Conferences with instructor on problems of news gathering and writing.
- 312. Advanced Reporting Workshop.** (3:0:9) A.W.S. Prerequisite: Journalism 212 and consent of instructor. Staff
- 315. Press Photography.** (4:2:6) W. Prerequisite: Physics 177 or equivalent. Richards
Principles of photography for newspapers and periodicals; laboratory exercises in use of photographic equipment for taking and developing news and advertising pictures.
- 316, 317, 318. Press Photography Workshop.** (1:0:3 ea.) A.W.S. Prerequisite: Journalism 315 or consent of instructor. Staff
Individual projects requiring completion of photographic assignments for campus and commercial publications; weekly conferences with instructor on special problems in press photography.

321. **News Editing.** (3:2:3) A. Prerequisite: Journalism 211. Richards
Copyreading, proofreading, headline writing, and arrangement of both telegraph and local copy for newspapers. Special problems in handling sectional stories.
322. **Newspaper Makeup.** (3:1:6) W. Prerequisite: Journalism 321. Richards
Theory and practice of newspaper makeup; use of type faces, pictures, typographical devices for effective newspaper design and display; newspaper analysis.
323. **Editing Workshop.** (3:1:9) A.W.S. Prerequisite: Journalism 322. Staff
Practical editing experience in responsible positions on the campus newspaper. Conferences with instructor on progress.
330. **Newspaper Advertising.** (2:2:0) A. Staff
Organization and operation of the advertising department of the newspaper. Rates, procedures, and promotion for display and classified advertising.
- 331, 332, 333. **Advertising Sales and Promotion.** (2:0:6 ea.) A.W.S. Staff
Preparation of copy and layouts, and sale of local advertising in the campus newspaper. Conferences with the instructor on advertising promotion and field work in servicing advertising accounts.
341. **Radio-TV News Writing.** (3:2:2) A. Prerequisite: Journalism 211. Richards, Carle
Radio and TV news styles, types and sources; practice in writing and editing news copy for broadcast.
- 346, 347, 348. **Radio-TV News Workshop.** (2:0:6 ea.) A.W.S. Prerequisite: Journalism 341. Staff
Practical projects in gathering and writing news for broadcast. For qualified students, practice in TV news filming. Conferences on news problems.
351. **Radio and Television Advertising.** (3:3:0) W. Curtis
Business and advertising principles of radio and television. Survey of the commercial background of broadcasting.
352. **Radio-TV Commercial Continuity Writing.** (3:3:0) S. Carle
Study of all types of commercial writing for radio and television. Practice in writing announcements, formats, promotion and production spots. Use of typewriter required.
- 471x. **Magazine Article Writing.** (3) Home Study only. Prerequisite: English 113 or equivalent. Butterworth
Use of typewriter is required.
490. **Practices and Problems in Mass Communications.** (5:5:0) S. Home Study also. Staff
Comprehensive senior seminar, required of all majors, encompassing review of entire field while analyzing policies, practices, and problems of the mass media as social instruments.
491. **Projects in Editorial Journalism.** (Arr.) A.W.S. Prerequisite: consent of instructor. Carle
494. **Projects in Radio-TV Journalism.** (Arr.) A.W.S. Prerequisite: consent of instructor. Carle
497. **Projects in Public Relations.** (Arr.) A.W.S. Prerequisite: consent of instructor. Butterworth

Advanced Undergraduate or Graduate Courses

- 561. Public Relations.** (3:3:0) A. Butterworth
Philosophy and practice of public relations in business, governmental, educational, and other institutions. Study of various publics, media, and publicity methods.
- 564. Public Opinion Polls and Surveys.** (3:3:0) Offered 1960-61. Smith
Survey methods in opinion and attitude research; construction of questionnaires; sampling; procedures in telephone, mail, and personal interview surveys; evaluation of survey data. Application in a field project.
- 566. Industrial Magazine Editing.** (3:3:0) W. Richards
Principles and techniques of layout and design as related to the editing of magazines and special booklets; formats, titles, engraving, color utilization, and printing processes.
- 571. Magazine Article Writing and Analysis.** (3:3:0) S. Staff
Study of non-fiction articles for general magazines, specialized publications, and newspaper sections; assignment in planning and writing articles. Criticism, analysis of manuscript markets, and help in selling articles written in the course.

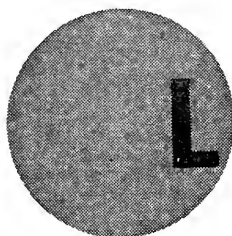
Graduate Courses

- 671. Research Methods in Mass Communications.** (3:3:0) A. Carle
- 672. Mass Communications and Society.** (4:4:0) W. Carle
- 674. Teaching Methods in Journalism.** (3:3:0) Su. Carle
Teaching methods for journalism in the secondary school and junior college. Planning and supervising school newspapers; disseminating school news in the public media.
- 676. School Yearbook and Magazine Production.** (2:2:0) Su. Taught 1960 and alternate years. Staff
Planning and supervising production of school yearbooks and magazines, including aspects of illustration, copy, layout, printing, binding and business management.
- 690. Seminar in Mass Communications.** (Arr.) S. Staff
- 691, 692, 693. Special Studies in Journalism.** (Arr.) A.W.S. Staff
- 694. Readings in Mass Communications.** (Arr.) A.W.S. Staff
- 699. Thesis for Master's Degree.** (Arr.) A.W.S. Staff

These courses also count in Journalism:

- Business Management 555. Problems in Advertising.** (5:5:0)
- Instruction 307. Motion Picture Photography.** (3:3:1)
- Instruction 608. Radio and Television in Education.** (2:2:1)
- Physics 177. Photography.** (4:3:3)
- Speech 241. Introduction to Radio and Television Broadcasting.** (3:3:2)

Languages



Professors: Lee (chairman, 326 McKay), Cummings (emeritus), de Jong, Nibley, R. M. Rogers, Watkins.

Associate Professors: V. L. Anderson, H. D. Taylor, Wilkins.

Assistant Professors: J. R. Clark III, Valentine.

Instructors: C. D. Anderson*, Gibson, D. Gubler, Smithson*.

The study of a foreign language is a unique educational experience. It is a means by which the student can participate in the inner life of another people and share its culture. Through the study of a foreign language, the student also comes to learn his own language much better. The poet and philosopher Goethe said, "He who knows no other language, does not know his own."

The objectives of the courses in the Department of Languages are:

1. **General:** To teach the student to understand and to speak the language with facility and to develop skill in reading and writing. To provide a survey of foreign literatures and to acquaint the student with foreign cultures.
2. **Specific:** To prepare students for the teaching profession, government work at home and abroad, international trade, L.D.S. missions in foreign countries, and research leading to advanced degrees.

Languages required for B.Y.U. Degrees. Every degree of Bachelor of Arts and Master of Arts degree granted by the university requires the completion of the equivalent of at least 24 hours of an approved foreign language. The degree of Doctor of Philosophy to be granted by this university requires reading proficiency in two foreign languages, one of which must be French or German.

Library and Laboratory Facilities. The department has an experienced and competent staff as well as good library facilities. It also has one of the most modern and best equipped language laboratories in the United States. All presently available electronic recording and playback equipment is at the disposal of more than sixty students every hour, permitting a strong emphasis to be placed on acquiring good pronunciation and speaking fluency. The tape library contains some of the best dramatic and poetic works in the principal languages of the world.

Credit for Study in High School. For students who have had the opportunity to study a foreign language in high school, the 24-hour language requirement for the B.A. degree may be proportionately reduced for each unit of high school work completed. Students who have completed one year of secondary school language work will normally register for the second quarter of the language. Those with two years of high school work will normally register for the third quarter, unless they are given permission by the department to register for second-year college work. Students with three years of high school work will be permitted to register for the first quarter of second-year college work.

Special Examination for Foreign Residence. Students who have had foreign residence may, with the consent of the department, obtain up to 25 hours of special foreign language credit. This may be done in two ways: (1) by success-

fully completing a more advanced course in the language; (2) by passing a series of examinations administered by the department. Foreign students are not permitted to obtain credit in this way for their native language.

Major and Minor Requirements

In French, German, Spanish, Latin, Greek, and Hebrew the department offers programs leading to a departmental major or minor with the Bachelor of Arts degree. The requirement for a major is 27 hours of upper division credit. The requirement for a minor is 18 hours of upper division credit. The department reserves the right to specify certain courses to be used toward a degree in these foreign languages. Areas that serve as minors include a second foreign language, English, one of the fine arts, history, political science, sociology, etc.

Prospective Graduate Students. Prospective graduate students are reminded that a second, and sometimes a third, language will be required of them in graduate school. It is advisable that work in at least one other language be started before the junior year. Students must follow specific steps in their progress toward a graduate degree. It is their responsibility to obtain these regulations from the department chairman and follow them. Graduate students who have the consent of the instructor may register for certain undergraduate literature courses.

MODERN LANGUAGES

French

The requirement for a major is 27 hours of upper division courses which must be selected from the following: French 321, 322, 323, 431, 432, 433, 441, 442, 443. 511 is recommended for those who plan to teach.

The requirement for a minor is 18 hours of upper division courses selected from the following: French 321, 322, 323, 441, 442, 443. 511 is recommended for those who plan to teach.

Lower Division Courses

- 101, 102, 103. First Year French.** (5:5:1 ea.) A.W.S. (G-HA) Clark, Lee, Staff
Designed for those who have had no French. Pronunciation, reading, the fundamentals of grammar. Special emphasis on conversation and the building of a substantial vocabulary.
- 201, 203. Second Year French Reading and Conversation.** (3:3:1 ea.) A.W.S.
Home Study also. Prerequisite: French 103 or three units of French in high school. Must be taken with 202 and 204. Clark, Lee, Staff
- 202, 204. Second Year French Conversation and Grammar.** (2:2:0 ea.) A.W.S.
Home Study also. Prerequisite: French 103 or three units of French in high school. Must be taken with 201 and 203. Clark, Lee, Staff

Upper Division Courses

- 301, 302, 303. Gospel in French.** (2:2:0 ea.) A.W.S. Prerequisite: 25 hours of French or consent of instructor. Clark, Lee
Discussions of the gospel message and the reading of scripture in French. The purpose of this course is to give the student practice in conversation and to widen his knowledge of the gospel.
- 311. Selected Readings.** (3:3:0) S. Prerequisite: French 203, 204, or consent of the instructor. Staff
Extensive readings of elementary and intermediate edited texts.
- 321, 322, 323. French Composition and Conversation.** (3:3:0 ea.) A.W.S. Home Study also. Prerequisite: 25 hours of French or equivalent. Staff

- 431, 432, 433. **Masterpieces of French Literature.** (3:3:0 ea.) A.W.S. 431x Home Study also. (G-HA) Prerequisite: 25 hours of French or consent of instructor. Lee
- 441, 442, 443. **Survey of French Literature and Culture.** (3:3:0 ea.) A.W.S. 442x Home Study also. (G-HA) Prerequisite: French 203, 204, or consent of instructor. Clark
General view of the literary periods, movements, and social backgrounds with representative readings.
- 491, 492, 493. **Individual Study in French.** (1-3:1-3:0 ea.) A.W.S. Staff
Assignments are made to fit the individual needs of advanced students.

Advanced Undergraduate or Graduate Course

511. **Materials and Techniques in Teaching French.** (3:3:0) A. Prerequisite: French 323 or consent of instructor. Clark, Lee

Graduate Courses

601. **French Composition and Conversation.** (3:3:0) S. Clark, Lee
621. **Introduction to Romance Philology.** (3:3:0) A. Clark
622. **Old French Morphology and Phonology.** (3:3:0) A. Clark
631. **Old French Literature.** (3:3:0) W. Clark
633. **French Literature of the Renaissance.** (3:3:0) S. Clark
634. **French Literature of the 17th Century.** (3:3:0) A. Lee
635. **French Literature of the 18th Century.** (3:3:0) W. Lee
637. **French Literature of the 20th Century.** (3:3:0) W. Lee
641. **Moliere.** (3:3:0) W. Clark
651. **French Drama of the 19th Century.** (3:3:0) S. Lee
652. **Modern French Drama.** (3:3:0) W. Clark
653. **French Novel of the 19th Century.** (3:3:0) S. Clark
654. **Modern French Novel.** (3:3:0) A. Lee
661. **Introduction to French Civilization.** (3:3:0) A. Clark
- 691, 692, 693. **French Seminar.** (2:2:0 ea.) A.W.S. Staff
699. **Thesis for Master's Degree.** (Arr.) A.W.S. Staff

German

The requirement for a major is 27 hours of upper division courses which must include German 321, 322, 323, 431, 432, 433, 441, 442, 443.

The requirement for a minor is 18 hours of upper division courses which must include 9 hours from the following groups: German 321, 322, 323, 431, 432, 433, 441, 442, 443.

Lower Division Courses

- 101, 102, 203. **First Year German.** (5:5:1 ea.) A.W.S. (G-HA)

Anderson, Rogers, Watkins, Gubler
Designed for those who have not had German. Pronunciation, reading, fundamentals of grammar. Special emphasis on conversation and the building of a substantial vocabulary.

201, 203. Second Year German Reading and Conversation. (3:3:1 ea.) A.W.S. Home Study also. Prerequisite: German 103 or three units of German in high school or consent of instructor. Must be taken with 202 and 204.
Anderson, Gubler, Rogers, Watkins

202, 204. Second Year German Conversation and Grammar. (2:2:0 ea.) A.W.S. Home Study also. Prerequisite: German 103 or three units of German in high school or consent of instructor. Must be taken with 201 and 203.
Anderson, Gubler, Rogers, Watkins

Upper Division Courses

301, 302, 303. Gospel in German. (2:2:0 ea.) A.W.S. Prerequisite: 15 hours of German or consent of instructor. Staff
Discussions of the gospel message and reading of scripture in German. The purpose of this course is to give the student practice in conversation and to widen his knowledge of the gospel.

311. Selected Readings. (3:3:0) S. Prerequisite: German 203, 204, or consent of the instructor. Staff
Extensive readings of elementary and intermediate edited texts.

307, 308, 309. Scientific German. (3:3:0 ea.) A.W.S. Home Study also. Anderson, Gubler

321, 322, 323. German Composition and Conversation. (3:3:0 ea.) A.W.S. Home Study also. Prerequisite: 25 hours of German or equivalent. Watkins

431, 432, 433. Masterpieces of German Literature. (3:3:0 ea.) A.W.S. Home Study also. (G-HA) Prerequisite: 25 hours of German or consent of instructor. Anderson, Gubler

441, 442, 443. Survey of German Literature and Culture. (3:3:0 ea.) A.W.S. (G-HA) Prerequisite: German 203, 204. Watkins, Rogers
General view of literary periods, movements, and social background with representative readings.

491, 492, 493. Individual Study in German. (1-3:1-3:0 ea.) A.W.S. Staff
Assignments are made to fit the individual needs of advanced students.
Advanced Undergraduate or Graduate Courses

511. Materials and Techniques in Teaching German. (3:3:0) A.S. Prerequisite: German 323 or consent of instructor. Rogers, Watkins

541. Lessing. (3:3:0) A. (G-HA) Rogers

542. Schiller. (3:3:0) W. (G-HA) Rogers

543. Goethe. (3:3:0) S. (G-HA) Rogers

Graduate Courses

601. German Composition and Conversation. (3:3:0) A. Watkins

637. Contemporary German Literature. (3:3:0) A. Anderson, Rogers

651. The German Drama. (3:3:0) W. Anderson

654. The German Novel. (3:3:0) W. Anderson

656. The German Novelle. (3:3:0) S. Anderson

658. German Lyric Poetry (3:3:0) W. Rogers

661. Cultural History of Germany. (3:3:0) W. Watkins

666. Gothic and Introduction to Comparative German Philology. (5:5:0) W. Watkins

667. Old High German and Old Saxon. (3:3:0) W. Watkins
 668. Middle High German. (3:3:0) S. Watkins
 691. Seminar in Philology. (2:2:0) S. Watkins
 694. Seminar in Literature. (2:2:0) S. Staff
 699. Thesis for Master's Degree. (Arr.) A.W.S. Staff

Italian

Lower Division Courses

- 101, 102, 103. First Year Italian. (5:5:0 ea.) A.W.S. (G-HA) Gibson, Watkins
 Special attention to accurate pronunciation for benefit of students of music and art for whom Italian has special interest and value. Grammar and graded reading.
 201, 203, 205. Second Year Italian. (3:3:1 ea.) A.W.S. Home Study also. Not given this year. Prerequisite: Italian 103 or two units of Italian in high school. Watkins
 202, 204, 206. Second Year Italian. (2:2:0 ea.) A.W.S. Not given this year. Prerequisite: Italian 103 or three units of Italian in high school. Watkins

Upper Division Courses

- 431, 432, 433. Masterpieces of Italian Literature. (3:3:0 ea.) A.W.S. Home Study also. (G-HA) Prerequisites: Italian 105, 106, or consent of instructor. Watkins
 Extensive and intensive reading from Italian masterpieces.
 491, 492, 493. Individual Study in Italian. (1-3:1-3:0 ea.) A.W.S. Watkins
 Assignments made to fit the individual needs of the advanced students.

Japanese

Lower Division Courses

- 101, 102, 103. First Year Japanese. (5:5:1 ea.) A.W.S. (G-HA) Staff
 Constant study of the writing systems. Fundamentals of grammar and the building of a substantial vocabulary. Easy conversation and composition throughout.
 201, 203. Second Year Japanese. (3:3:0 ea.) A.W.S. Prerequisite: Japanese 103 or consent of instructor. Staff
 Reading and conversation.
 202, 204, 206. Second Year Japanese. (2:2:0 ea.) A.W.S. Prerequisite: Japanese 103 or consent of instructor. Staff
 Conversation and grammar. Assignments made to fit the individual needs of advanced students.

Upper Division Courses

- 491, 492, 493. Individual Study in Japanese. (1-3:1-3:0 ea.) A.W.S. Staff
 Assignments made to fit the individual needs of advanced students.

Portuguese

Lower Division Courses

- 101, 102, 103. First Year Portuguese.** (5:5:1 ea.) A.W.S. (G-HA) de Jong
A beginning course. Pronunciation, conversation, reading, and fundamentals of grammar. Special attention to Portuguese as the language of Brazil.
- 201, 203, 205. Second Year Portuguese.** (3:3:1 ea.) A.W.S. Home Study also. Staff
Prerequisite: Portuguese 103 or three units of Portuguese in high school.
Reading and conversation.
- 202, 204, 206. Second Year Portuguese.** (2:2:0 ea.) A.W.S. Prerequisite: Portuguese 103 or two units of Portuguese in high school. Staff
Conversation and grammar.

Upper Division Courses

- 321, 322, 323. Portuguese Composition and Conversation.** (3:3:0 ea.) A.W.S. de Jong
Prerequisites: Portuguese 104 and 106; 25 hours of Portuguese or the equivalent.
- 431, 432, 433. Masterpieces of Brazilian and Portuguese Literature.** (3:3:0 ea.) de Jong
A.W.S. (G-HA) Prerequisites: Portuguese 205 and 206 or consent of instructor.
- 491, 492, 493. Individual Study in Portuguese.** (1-3:1-3:0 ea.)
Assignments are made to fit the individual needs of advanced students.
- 601, 602, 603. Portuguese Composition and Conversation.** (3:3:1 ea.) A.W.S. de Jong

Graduate Courses

- 631. Introduction to Portuguese Literature.** (3:3:0) A. de Jong
- 632. Portuguese Literature.** (3:3:0) W. de Jong
- 633. Contemporary Portuguese Literature.** (3:3:0) S. de Jong
- 655. Introduction to Brazilian Literature.** (3:3:0) A. de Jong
- 656. Brazilian Literature.** (3:3:0) W. de Jong
- 657. Contemporary Brazilian Literature.** (3:3:0) S. de Jong
- 694. Portuguese Seminar.** (3:3:0) A.W.S. de Jong
- 696. Individual Study.** (1-3:1-3:0) A.W.S. Staff
- 699. Thesis for Master's Degree.** (1-6:1-6:0) A.W.S. Staff

Russian

Lower Division Courses

- 101, 102, 103. First Year Russian.** (5:5:1 ea.) A.W.S. (G-HA) Gubler
Designed for those who have had no Russian. Pronunciation, reading, fundamentals of grammar, and building of a substantial vocabulary.
- 201, 203, 205. Second Year Russian.** (3:3:1) A.W.S. Home Study also. Prerequisite: Russian 103. Gubler
Readings in Russian literature.
- 202, 204, 206. Second Year Russian.** (2:2:0 ea.) A.W.S. Home Study also. Prerequisite: Russian 103.

Upper Division Courses

- 431, 432, 433. Masterpieces of Russian Literature.** (3:3:0 ea.) A.W.S. (G-HA) Gubler
Prerequisites: Russian 205, 206, or consent of instructor.
- 491, 492, 493. Individual Study in Russian.** (1-3:1-3:0 ea.) A.W.S. Gubler
Assignments are made to fit individual needs of advanced students.

Spanish

The requirement for a major is 27 hours of upper division courses which must include Spanish 321, 322, 441, 442, 443, 451, 452, 453; 511 is recommended for those who plan to teach.

The requirement for a minor is 18 hours of upper division courses which must include 9 hours from the following groups: Spanish 321, 322, 323, 441, 442, 443, 451, 452, 453; 511 is recommended for those who plan to teach.

Lower Division Courses

- 101, 102, 103. First Year Spanish.** (5:5:1 ea.) A.W.S. 101 Home Study also. (G-HA) Taylor, Valentine, Wilkins, Staff
Designed for those who have not had Spanish. Pronunciation, reading, and fundamentals of grammar. Special emphasis on conversation and the building of a substantial vocabulary.
- 201, 203. Second Year Spanish Reading and Conversation.** (3:3:1 ea.) A.W.S. Home Study also. Prerequisite: Spanish 103 or three units of Spanish in high school or consent of instructor. Must be taken with 202 and 204. Taylor, Valentine, Wilkins, Staff
- 202, 204. Second Year Spanish Conversation and Grammar.** (2:2:0 ea.) A.W.S. Home Study also. Prerequisite: Spanish 103 or three units of Spanish in high school or consent of instructor. Must be taken with 201 and 203. Taylor, Valentine, Wilkins, Staff

Upper Division Courses

- 301, 302, 303. Gospel in Spanish.** (2:2:0 ea.) A.W.S. Valentine
Discussions of the gospel message and the reading of the scriptures in Spanish. The aim of this course is to give the student practice in conversation and to widen his knowledge of the gospel.
- 311. Selected Readings.** (3:3:0) S. Prerequisite: Spanish 203, 204, or consent of instructor. Staff
Extensive reading of elementary and intermediate edited texts.
- 321, 322, 323. Spanish Composition and Conversation.** (3:3:0 ea.) A.W.S. Home Study also. Prerequisites: Spanish 203, 204. Valentine
- 431, 432, 433. Masterpieces of Spanish and Spanish-American Literature.** (3:3:0 ea.) A.W.S. 431 Home Study only. Not given this year. (G-HA) Prerequisite: 25 hours of Spanish or consent of instructor. Taylor, Valentine, Wilkins
- 441, 442, 443. Survey of Spanish Literature and Culture.** (3:3:0 ea.) A.W.S. 442, 443 Home Study also. (G-HA) Prerequisites: Spanish 203, 204 or consent of instructor. Taylor
- 451, 452, 453. Survey of Spanish-American Literature and Culture.** (3:3:0 ea.) A.W.S. (G-HA) Prerequisites: Spanish 203 and 204 or consent of instructor. Wilkins
- 491, 492, 493. Individual Study in Spanish.** (1-3:1-3:0 ea.) A.W.S. Staff
Assignments are made to fit the individual needs of advanced students.

Advanced Undergraduate or Graduate Courses

511. **Materials and Techniques in Teaching Spanish.** (3:3:0) A.S. Prerequisite: Spanish 323 or consent of instructor. Gibson, Taylor, Valentine, Wilkins
561. **Drama of the 20th Century in Spain.** (3:3:0) W. Prerequisites: Spanish 443, 453, or consent of instructor. Taylor
571. **Spanish Seminar.** (3:3:0) S. Prerequisite: Consent of instructor. Staff
Research problems for advanced students.

Graduate Courses

601. **Spanish Composition and Conversation.** (3:3:0) A. Gibson, Taylor, Valentine, Wilkins
621. **Medieval Literature.** (3:3:0) A. Prerequisite: Spanish 443 or equivalent. Taylor
622. **Spanish Literature of the 19th Century.** (3:3:0) W. Prerequisite: Spanish 443 or equivalent. Gibson, Taylor
623. **Literature of the 20th Century in Spain.** (3:3:0) W. Prerequisite: Spanish 443 or equivalent. Gibson, Taylor
631. **Hispanic American Civilizations of the Colonial Period.** (3:3:0) A. Valentine, Wilkins
632. **Hispanic American Civilizations of the Modern Period.** (3:3:0) W. Valentine, Wilkins
633. **Hispanic American Essay.** (3:3:0) S. Valentine, Wilkins
651. **History of the Spanish Language.** (3:3:0) W. Gibson
655. **Spanish American Poetry.** (3:3:0) W. Prerequisite: Spanish 433 or equivalent. Taylor
661. **Drama of the 20th Century in Spain.** (3:3:0) S. Prerequisite: Spanish 443 or equivalent. Taylor
665. **Drama of the Spanish Golden Age.** (3:3:0) W. Prerequisite: Spanish 443 or equivalent. Gibson, Taylor
667. **Drama in Spanish America.** (3:3:0) W. Prerequisite: Spanish 453 or equivalent. Wilkins
671. **Spanish Novel of the 19th Century.** (3:3:0) W. Prerequisite: Spanish 443 or equivalent. Taylor
672. **Modern Mexican Novel.** (3:3:0) W. Prerequisite: Spanish 453 or equivalent. Wilkins
673. **South American Novel.** (3:3:0) S. Prerequisite Spanish 453 or equivalent. Wilkins
675. **Cervantes' Don Quixote.** (3:3:0) W. Prerequisite: Spanish 443 or equivalent. Gibson, Taylor, Valentine, Wilkins
681. **Short Story in Spanish America.** (3:3:0) W. Prerequisite: Spanish 443 or equivalent. Valentine, Wilkins
694. **Spanish Seminar.** (3:3:0) A.W.S. Staff
699. **Thesis for Master's Degree.** (Arr.) A.W.S. Staff

CLASSICAL LANGUAGES

Latin

The requirement for a major is 36 hours of upper division courses which must include Latin 441, 442, 443, 511; and 15 hours of electives to be selected from 201, 202, 203, 204, 311, 491, 492, 493, and 667, 668, 651.

The requirement for a minor is 24 hours of upper division courses including Latin 441, 442, 443, 511, and 9 hours of electives from 203, 204, 311, 491, 492, 493, 667, 668, 651.

Lower Division Courses

- 101, 102, 103. **First Year Latin.** (5:5:0 ea.) A.W.S. (G-HA) Clark
Designed for those who have not had Latin. Mastery of pronunciation, declensions, and conjugations. Correlation of Latin originals with English derivatives. Graded reading. Characteristics of Roman civilization.
- 201, 203, 205. **Second Year Latin.** (3:3:0 ea.) A.W.S. Home Study also. Pre-requisite: Latin 103 or three units of Latin in high school. Clark
Readings from Caesar, Livy, etc., with a review and continuation of grammar.
- 202, 204, 206. **Second Year Latin.** (2:2:0 ea.) A.W.S. Home Study also. Pre-requisite: Latin 103. Clark
Latin grammar.

Upper Division Courses

340. **Pre-Legal Latin.** (3:2:0) A. Clark
Recommended for pre-legal students. Admission by consent of instructor.
- 341, 342. **Pre-Medical Latin and Greek.** (3:2:0 ea.) W.S. Clark
Recommended for pre-medical students. Admission by consent of instructor.
- 441, 442, 443. **Survey of Latin Literature and Culture.** (3:3:0 ea.) A.W.S. Clark
- 491, 492, 493. **Individual Study.** (1-3:1-3:0 ea.) A.W.S. Clark

Graduate Courses

- 651, 652. **Readings in Vulgar Latin.** (3:3:0) A.W. Clark
- 667, 668, 669. **Cicero, Virgil; Latin Style and Composition.** (3:3:0 ea.) A.W.S. Clark
- 677, 678, 679. **Horace; the Latin Poets; the Latin Dramatists.** (3:3:0 ea.) A.W.S. Clark
- 681, 682, 683. **The Latin Fathers.** (3:3:0 ea.) A.W.S. Prerequisite: consent of instructor. Nibley
699. **Thesis for Master's Degree.** (Arr.) A.W.S. Staff

Greek

For major and minor requirements consult the department chairman.

Lower Division Courses

- 101, 102, 103. **Elementary Greek.** (5:5:0 ea.) A.W.S. (G-HA) Nibley

Graduate Courses

664. **Advanced Readings in Greek.** (3:3:0) A. Prerequisite: consent of the instructor. Nibley
Epic poets: Homer, Hesiod.
665. **Advanced Readings in Greek.** (3:3:0) W. Prerequisite: consent of the instructor. Nibley
Greek dramatists: three plays.
666. **Advanced Readings in Greek.** (3:3:0) S. Prerequisite: consent of the instructor. Nibley
Lyric poets: Pindar and minor poets.
- 667, 668, 669. **The Greek New Testament.** (3:3:0 ea.) A.W.S. Nibley
- 671, 672, 673. **Individual Study in Greek.** (2-3:2-3:0 ea.) A.W.S. Nibley
677. **Greek Prose Writers.** (3:3:0) A. Nibley
Plato: Apology, Crito, Timaeus.
678. **Greek Prose Writers.** (3:3:0) W. Nibley
Attic orators: Lysias, Demosthenes, Isocrates.
679. **Greek Prose Writers.** (3:3:0) W. Nibley
Greek historians: Arrian's Alexander, Asiatic Legations.
699. **Thesis for Master's Degree.** (Arr.) A.W.S. Nibley

Semitics

Hebrew, Aramaic, Akkadian, Egyptian

For Semitic Languages other than Arabic, see College of Religious Instruction, Biblical Languages. The courses in Semitic languages carry credit in religion and fulfill the language requirements for the B.A. degree.

Lower Division Courses

- 101, 102, 103. **First Year Arabic.** (5:5:1 ea.) A.W.S. (G-HA) Nibley
The modern spoken language. Designed for those who have had no Arabic.

Graduate Courses

See College of Religious Instruction for courses in Hebrew, Aramaic, Syriac, Akkadian, and Egyptian.

Linguistics

Lower Division Course

160. **Practical Phonetics.** (3:3:0) A.W.S. de Jong
Elementary principles of speech mechanics in their relation to correct diction.

Upper Division Course

360. **Advanced Phonetics.** (3:3:0) W. de Jong

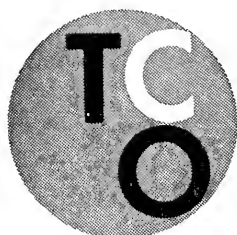
Graduate Course

601. **Introduction to Linguistics.** (3:3:0) S. Staff

Latin

(See courses in Languages and Religion)

L.D.S. Theology, Church Organization and Administration



Professors: Belnap, Done (chairman, 243 S), Ellsworth.
Associate Professors: Ludlow, Yarn.
Assistant Professors: Bankhead, Barrett, Doxey, Mad- sen, Pearson, Riddle, Turner.
Instructor: Bennett.

Courses in the Department of L.D.S. Theology, Church Organization and Administration are offered to help students meet the religious requirements of the university. An undergraduate major or minor is **not** offered in this department.

THEOLOGY

Lower Division Courses

101, 102, 103. An Introduction to Mormonism. (2:2:0 ea.) A.W.S. (G-R) Staff
 Examination of basic principles of Latter-day Saint theology for non-L.D.S. investigators of the gospel.

104, 105, 106. The Principles and Doctrines of Mormonism. (2:2:0 ea.) A.W.S. Staff
 Home Study also. (G-R)

Course 104 is an examination of the great apostasy and the restoration of the Gospel. Courses 105 and 106 are a consideration of the basic principles, doctrines, and ordinances of the Church of Jesus Christ of Latter-day Saints.

Upper Division Courses

301, 302, 303. The Principles, Doctrines, and Philosophy of the Church of Jesus Christ of Latter-day Saints. (2:2:0 ea.) A.W.S. 303 Home Study also. (G-R) Doxey, Ludlow, Turner

Distinctive doctrines and principles of the restored gospel of Jesus Christ. Recommended for upper division students who have not had 104, 105, 106. Course 303 considers Signs of the Times, Second Coming, Millenium, Spirit World, Resurrection, Future Kingdoms.

325. The Scientist Looks at Religion. (2:2:0) A.W.S. Staff
 Certain concepts of religion in the light of modern science.

332. Your Religious Problems. (2:2:0) A.W.S. Belnap
 Consideration of problems pertaining to the individual student.

CHURCH ORGANIZATION AND ADMINISTRATION

Classes in missionary methods are provided primarily for students who look forward to missionary service in the stakes and missions of the Church. Courses 131, 132, and 323 form a fifteen-hour program which may be taken in a single quarter by persons who desire to study problems related to the presentation of the Gospel. Lower division students may be admitted to 323 by the consent of the instructor.

Lower Division Courses

- 131. Training for Prospective Missionaries.** (5:5:0) A.W.S. (G-R) Ellsworth, Ricks
 Doctrine used by missionaries, and practice in the use of the present
 "Plan."
- 132. Training for Prospective Missionaries.** (5:5:0) A.W.S. (G-R) Bankhead
 Study of vital doctrinal themes commonly used in the mission field.
- 141, 142, 143. Missionary Approach to the Gospel.** (2:2:0 ea.) A.W.S. Home
 Study also. (G-R) Staff
 Open to all students. Intended for those who cannot elect the more in-
 tensive missionary-training course. Procedures used in explaining the Re-
 stored Gospel of Jesus Christ to friends and investigators.

Upper Division Courses

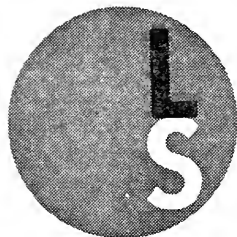
- 301. Priesthood and Church Government.** (2:2:0) A.W.S. Home Study also. (G-
 R) Doxey, H. G. Clark
 Powers, authority, and functions of the priesthood and its role in Church
 government.
- 311. The Church Welfare Program.** (2:2:0) A.W.S. (G-R) Doxey
 Historical development and economic and spiritual aspects of the L.D.S.
 Welfare Program.
- 313x. Research Procedure and Evaluation of Evidence in Genealogy.** (4) Home
 Study only. Harland
 A secondary course of training in research procedure and analysis of
 pedigree problems, and the evaluation of record evidences.
- 314x. Genealogical Research in the United States.** (4) Home Study only. Bennett
 A basic study of genealogical sources in older sections of the United
 States, and the scientific method of research by which these sources may
 be utilized most effectively to obtain ancestral connections.
- 314xb. Advanced American Genealogical Research.** (4) Home Study only. Bennett
 An advanced course in finding forefathers in America, with special at-
 tention to methods and records which can be utilized in the Southern
 States, New England, the Middle Atlantic States, and the West.
- 315x. Genealogical Research in England and Wales.** (4) Home Study only. Smith
 Introductory course in English and Welsh genealogical research, giving
 an acquaintance with available sources there, their helpfulness and limita-
 tions and approved research procedures.
- 316x. Danish Ancestral Research.** (4) Extension course only. Christiansen
 Introductory study of Danish research sources and the proper technique
 in using them to solve Danish ancestral problems, including training in
 overcoming the barriers of language and handwriting.
- 317. New Methods and Sources in Seeking Forefathers.** (2:2:0) A.W.S. Home
 Study also. (G-R) Bennett
 An elementary course in the purpose and technique of genealogical re-
 search and an investigation of the rich sources now available. Blessings
 obtainable through temple marriage.
- 318. Advanced Course in Genealogical Research Procedure.** (2:2:0) A.W.S.
 Home Study also. (G-R) Prerequisite: Ch. Adm. 317 or consent of instruc-
 tor. Bennett
 Wise practice in analyzing and obtaining solutions of actual pedigree
 problems, and determining when a connection is really proved.

323. **Great L.D.S. Missionaries.** (5:5:0) W. Barrett
Examination of the writings, methods, and spirit of certain great Latter-day Saint missionaries.
349. **Economics of the Gospel Plan.** (2:2:0) A.W.S. (G-R) Ellsworth
Art of applying principles and philosophy of the gospel to everyday situations, including vocational selection, personal records, investments, insurance, purchasing, etc.

Assistant Professors: Knight (chairman, 185 Library),
Butt, Hamblin, Rich, Sorenson.

Instructors: Berry, Flake, R. Hansen*, G. D. Jenson, A. D. Larsen, Nash, E. Nielson, Purdy, C. T. Smith, Storrs, M. Swensen, Thorne.

Library Science



The library science program is organized to fill the needs of school and public librarians, teachers and students who wish to become familiar with library use, and those who wish to do advanced study in a professional library school. All of the following courses will be taught one or more times during a two-year period, including summer sessions.

Students wishing to secure a Librarian's Certificate for Utah schools must take courses 355, 363 and 366. Those planning to minor in Library Science (20 credit hours) may select courses which will best fill their needs for elementary, secondary, or professional school after taking the three basic courses 355, 363, and 366.

Lower Division Course

- 111. Use of Books and Libraries.** (2:2:0) A.W.S.Su. Staff
Efficient use of library materials; card catalog; use of general reference books (bibliographies, dictionaries, encyclopedias, and indexes); and making of bibliographies.

Upper Division Courses

- 355. Classification and Cataloging.** (5:5:0) W.Su. Jenson
Theory and principles of classification and cataloging of books in libraries. Practical problems and laboratory practice. Must be able to type.
- 363. Library Organization and Administration.** (3:3:1) A.Su. Home Study also. Knight
General organization and administration in all types of libraries. Emphasis on physical facilities, objectives, and management.
- 366. Book Selection.** (3:3:1) S.Su. Staff
Principles, criteria, and practice in selection of books and other library materials.
- 370. Introduction to Bibliography.** (3:3:0) A.W. Knight, Hansen
Intensive study of content and use of reference books such as encyclopedias, dictionaries, indexes, yearbooks, bibliographies, atlases, and biographies. Bibliography form stressed. Reference department serves as a laboratory.

Advanced Undergraduate or Graduate Courses

- 569. Reading Guidance for Young People.** (3:3:0) W.Su. Staff
A critical study of the reading interests and needs of young people. Problems of the reluctant and the avid reader. Extensive examination and reading of books.

- | | |
|---|-------|
| 571. Bibliography of the Sciences. (3:3:0) Su. | Staff |
| 572. Bibliography of the Humanities. (3:3:0) Not given this year. | Staff |
| 573. Bibliography of the Social Sciences. (3:3:0) S. | Staff |
| 590. History of Books and Development of Libraries in Our Civilization. (3:3:0) Su. | Staff |

Graduate Courses

- | | |
|---|-------|
| 650. Problems in Acquisition and Organization of Library Materials. (3:3:0) Su. | Rich |
| 655. Readings and Research in Library Science. (Arr.) A.W.S.
Individual work based on previous preparation of student. | Staff |

These courses also count in Library Science:

Instruction 305. Audio-Visual Education. (3:3:1)

Instruction 340. Children's Literature. (3:3:0)

Speech 527. Storytelling. (3:3:0)

Linguistics

(See courses in Languages.)

Management

(See courses in Business Management and Economics and Management of the Home.)

Marketing

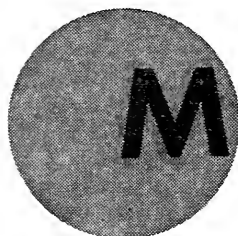
(See courses in Business Management.)

Associate H. J. Fletcher (chairman, 289
Professors: ESC), D. Robinson.

Assistant
Professors: Fearnley, Karst, Olpin.

Instructors: Haupt, Hillam*, F. Nielson*,
 Wickes.

Mathematics



All entering freshmen intending to take mathematics must take the mathematics placement test at the time of registration. Mathematics 231 (Analytic Geometry and Calculus) may be taken during the freshman year only if a sufficiently high score is obtained on the placement test.

Departmental majors are required to complete a minimum of twenty-seven upper division credit hours in mathematics approved by the chairman of the department and including Mathematics 541, 542, and 543 (Advanced Calculus). In addition a written comprehensive examination is given to all majors in the final quarter of the senior year.

Departmental minors should complete Mathematics 231, 232, and nine credit hours in mathematics courses numbered above 232.

The requirements for a teaching major, a teaching minor, or a composite teaching major in mathematics are given in the College of Education section of this catalog. A student meeting these requirements receives his degree in the College of Education and not in the Mathematics Department of the College of Physical and Engineering Sciences. A departmental major in Mathematics may obtain a teaching certificate by completing thirty-three credit hours of required professional education courses.

Suggested Sequence of Courses

Freshman Year

	A	W	S
Math 231, 232, 233	5	5	5
English 111, 112, 113	3	3	3
Chemistry 111, 112	5	5	
Zoology 105 or Botany 101 ..			5
Physical Education	1	1	1
Health 130		2	
Religion	2	2	2
	<u>16</u>	<u>18</u>	<u>16</u>

Sophomore Year

	A	W	S
Math 234, 316, 317	5	3	3
Physics 211, 212, 213	5	5	5
History 170 or 180		5	
Social Science			5
Biological Science	3		
Elective	3	3	3
Religion	2	2	2
	<u>18</u>	<u>18</u>	<u>18</u>

Junior Year

	A	W	S
Math 311, 312, 313	3	3	3
Math 371, 372, 373	3	3	3
German 101, 102, 103	5	5	5
Philosophy 310			3
English Literature	4		
Social Science		5	
Elective			3
Religion	2	2	
	<u>17</u>	<u>18</u>	<u>17</u>

Senior Year

	A	W	S
Math 541, 542, 543	3	3	3
Math 551, 552, 553	3	3	3
German 307, 308, 309	3	3	3
Philosophy 425		3	
Elective	6	6	6
Religion	2		2
	<u>17</u>	<u>18</u>	<u>17</u>

Remedial Course

51. **Plane Geometry.** (0:5:0) A.S. Staff
Equivalent to one year of high school plane geometry.

Lower Division Courses

101. **Intermediate Algebra.** (5:5:0) A.W.S.Su. Home Study also. Staff
Prescribed for students who have had less than one and one-half years of high school algebra or who have placed in the lower group in the mathematics placement examination.
103. **Solid Geometry.** (3:3:0) Not given this year. Staff
Equivalent to one semester of high school solid geometry.
105. **Basic Mathematics for Technicians.** (4:5:0) A. Spencer
A brief review of fundamental arithmetic processes, a study of algebra and trigonometric functions.
106. **Basic Mathematics for Technicians.** (4:5:0) S. Prerequisite: Math 105. Spencer
Continued operational studies in logarithms, determinants, quadratics, and advanced trigonometry.
107. **Basic Mathematics for Technicians.** (4:5:0) W. Prerequisite: Math 106. Spencer
Plane and solid analytical geometry and the elements of differential and integral calculus.
111. **College Algebra.** (5:5:0) A.W.S.Su. Home Study also. Prerequisites: Math 101 or its equivalent by transfer credit or placement based upon the mathematics placement test. Staff
112. **Plane Trigonometry.** (5:5:0) A.W.S.Su. Home Study also. Prerequisites: Plane Geometry and Math 101 and 111, or their equivalent by transfer credit, or Plane Geometry and placement based upon the mathematics placement test. Staff
231. **Analytic Geometry and Calculus.** (5:5:0) A.W.S.Su. Home Study also. Prerequisites: Math 101, 111, and 112, or their equivalents by transfer credit, or placement based upon the mathematics placement test. Staff
Beginning coordinate geometry, introduction to differentiation and integration.
232. **Analytic Geometry and Calculus.** (5:5:0) A.W.S.Su. Home Study also. Prerequisite: Math 231. Staff
Further coordinate geometry, techniques of differentiation and integration and their applications.
233. **Analytic Geometry and Calculus.** (5:5:0) A.W.S.Su. Home Study also. Prerequisite: Math 232. Staff
Further development of coordinate geometry and the techniques of differentiation and integration.
234. **Calculus and Differential Equations.** (5:5:0) A.W.S.Su. Home Study also. Prerequisite: Math 233. Staff
Multiple integration, an introduction to infinite series including Taylor Series and Fourier Series, and an introduction to differential equations.

Upper Division Courses

307. **History of Mathematics.** (3:3:0) A. Hillam
A study of the development of mathematics with emphasis on the underlying principles and motivations.

- 311. Numerical Analysis.** (3:3:0) A. Prerequisite: Math 234. Karst
Solutions of algebraic equations, interpolation, finite differences, solution of differential equations, iteration methods.
- 312. Numerical Analysis.** (3:2:3) W. Prerequisite: Math 311. Karst
Application of numerical analysis using a digital computer. How to use the auxiliary computer equipment. Elementary programming in the basic system.
- 313. Numerical Analysis Laboratory.** (3:1:6) S. Prerequisite: Math 312. Karst
Application of numerical analysis using a digital computer. Flow charting and coding in floating point and optimum programmed systems.
- 316. Mathematics for Scientists and Engineers.** (3:3:0) A.W. Prerequisite: Math 234. Staff
Laplace Transform, partial differential equations, Bessel Functions.
- 317. Mathematics for Scientists and Engineers.** (3:3:0) W.S. Prerequisite: Math 316. Staff
Complex analysis, vector analysis.
- 318. Engineering Mathematics.** (3:3:0) A. Prerequisite: Math 232. Staff
Matrix algebra, Boolean algebra, elementary statistics, numerical methods and probability.
- 334. Introduction to Differential Equations.** (3:3:0) Not given this year. Pre-requisite: Math 234. Staff
- 335. Differential Equations.** (3:3:0) Not given this year. Prerequisite: Math 334. Staff
- 339. Vector Analysis.** (3:3:0) Not given this year. Prerequisite: Math 234. Staff
- 347. Theory of Equations.** (3:3:0) Not given this year. Prerequisite: Math 232. Staff
- 357. Foundations of Geometry.** (3:3:0) Not given this year. Prerequisite: Math 232. Staff
- 371, 372, 373. Introduction to Abstract Algebra.** (3:3:0) A.W.S. Prerequisite: Math 232. Robinson
Basic algebraic concepts, particular number systems, and abstract algebraic systems.
- 377. Foundations of Algebra.** (3:3:0) S. Prerequisite: Math 232. Hillam
- 387. Theory of Numbers.** (3:3:0) W. Prerequisite: Math 232. Hillam
Foundations of number theory, congruences, residues, reciprocity law, and diophantine equations.
- 491, 492, 493. Seminar.** (1:1:0 ea.) A.W.S. Staff
A course for seniors involving topics in modern mathematics research.

Advanced Undergraduate or Graduate Courses

- 521, 522, 523. Introduction to Statistics.** (3:3:0) Prerequisite: Math 233. Staff
- 541, 542, 543. Advanced Calculus.** (3:3:0) A.W.S. Prerequisite: Math 234. Fletcher
Advanced treatment of differential and integral calculus.
- 551, 552, 553. Introduction to Topology.** (3:3:0) A.W.S. Prerequisite: Math 232. Fearnley
An axiomatic treatment of linearly ordered spaces including properties of closed sets, connected sets, and separable sets, elementary plane topology, metrization, applications to analysis.

Graduate Courses

617, 618, 619. Mathematical Physics. (3:3:0) A.W.S.	Staff
631, 632, 633. Complex Analysis. (3:3:0) A.W.S.	Fearnley
641, 642, 643. Functions of a Real Variable. (3:3:0) Not given this year.	Staff
647, 648, 649. Partial Differential Equations. (3:3:0) Not given this year.	Fletcher
671, 672, 673. Modern Algebra. (3:3:0) A.W.S.	Robinson
681, 682, 683. Linear Algebra. (3:3:0) Not given this year.	Robinson
695. Readings in Mathematics. (1-3:1-3:0) Arr.	Staff
699. Thesis for Master's Degree. (Arr.) Arr.	Staff

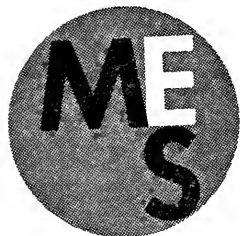
Professor: Baxter, (chairman, 274 ELB).

**Associate
Professor:** Simonsen.

**Assistant
Professors:** Beebe, J. Cannon, Wille.

Instructors: Finlayson, C. Gardner.

Mechanical Engineering Science



This department offers a five-year program leading to the degree of Bachelor of Engineering Science in Mechanical Engineering. The student completing the prescribed course of study will receive a broad and comprehensive training in mechanical engineering in addition to the general and religious education given to all undergraduate students at Brigham Young University.

Required High School Preparation

A student enrolling in the Department of Mechanical Engineering Science will find it necessary, in order to complete the required curricula without loss of time, to have successfully completed the following high school courses or their equivalents:

3 units of English.

3 units of Mathematics which include at least one unit of plane geometry and one and one half units of algebra with additional course work in algebra, trigonometry or solid geometry strongly recommended.

1 unit of physical science which should be either chemistry or physics.

A student who has not met these requirements may make up his deficiencies by enrolling in special courses designed for this purpose, or by successfully passing an examination designed to show that he has sufficient understanding of the subject matter to carry his regular college courses satisfactorily. He should recognize that the time required to complete his college program will probably be extended by the length of time necessary to make up these deficiencies. A student who has not completed these recommended courses by the time he graduates from high school may complete them through home study courses or other courses offered by the Brigham Young University Extension Service. Information about these courses will be sent upon request.

Upon enrollment, a student who has the necessary units of high school mathematics will be given a placement test. If his high school training is found deficient, he may be required to take extra remedial work. On the other hand, if this test shows unusual proficiency, he may be excused from taking some of the more elementary college mathematics.

Requirements for Major

To obtain a degree the student must complete the sequence of courses described below, and must work at least one summer during his last three years of residence in an industry related to the field. The student should consult with the department chairman in advance regarding his summer employment. The following abbreviations are used in the description: Ch.E. for chemical engineering; C.E. for civil engineering; E.E. for electrical engineering; G.E. for geological engineering; and M.E. for mechanical engineering.

Grade Requirements

A student must have received an average grade of "C" or better in calculus and physics before being admitted as a regular third-year student in the department. A student who has not obtained this average may petition for special consideration. If he is admitted, it will be on a probationary basis subject to periodic review. If his work subsequently proves unsatisfactory, he will be dropped from the department.

In addition to the regular university academic requirement, a grade of "C" or higher is required in all prescribed courses taken after being admitted as a third year student. If a grade lower than "C" is received in any required course, the student must repeat the course unless he petitions the Department Chairman and is excused. A "D" grade in a course which is a prerequisite for another course may be considered to fill the prerequisite requirement so that the student may continue in a course sequence. This in no way rescinds the restriction explained above regarding the removal of a grade lower than "C."

General Education Group Requirements

The general education requirements are listed in the section of this catalog titled "Requirements for Graduation" together with the elective subjects which the student may select. Group I is automatically filled by following the sequence of courses described below. Any course listed in the general education requirements is acceptable for filling the remaining groups. The student will observe that allowance has been made for only 69 hours of general group subjects within the formal program. This implies that he must usually take advantage of the possibility of cross-referencing six hours of credit between the humanities and aesthetics or the social science groups and the religion group requirement.

Students in the AFROTC program may substitute three hours of air science for the required three hours of physical education. In addition, they may substitute three hours of air science for any of the general education requirements. These substitutions will be accepted as satisfying the graduation requirements only if the student completes the AFROTC program.

First Year							
	A	W	S				
Chem. 105, 106, 107	4	4	4	C.E. 301, 303, 302	4	5	4
Math 111, 112, 231	5	5	5	M.E. 320, 321, 322	3	3	3
English 111, 112, 113 ..	3	3	3	Chem. 378, 379	2	2	
Physical Education	1	1	1	M.E. 331		3	
Religion (6)				M.E. 360	2		
Health Education 2)				Geology 110			4
Group Elective 5)	4-5	5-4	5	Religion (4)			
M.E. 100 (1)				Group Electives (6)			
				Cross reference 3 with Religion			
Total Hours	17-18	18-17	18		2	2	6
				Total Hours	16	18	17
Second Year				Fourth Year			
	A	W	S		A	W	S
Math 232, 233, 234	5	5	5	M.E. 410, 411	4		3
Physics 211, 212, 213	5	5	5	M.E. 430, 431, 432	4	3	5
C. E. 201, 202, 203	3	3	3	M.E. 441		3	
Electives (9)				M.E. 460, 461		2	2
Religion (6)		5	5	E.E. 301, 302, 303	4	4	4
Total Hours	18	18	18	C.E. 401		3	
				Religion		2	
Third Year				Group Electives, cross reference 3 with Religion	5		3
	A	W	S				
Math 316, 317	3	3		Total Hours	17	17	17

Fifth Year

	A	W	S				
M.E. 530		3		M.E. 591, 592, 593	1	1	1
M.E. 535	4			Restricted Electives*	5	5	5
M.E. 590			1	Group Electives (10)	5		5
Bus. Mgt. 340		5		Total Hours	15	14	12

***Restricted Electives**

Three credit hours: M.E. 520, 522, 531, 541, 551, 552, 571, 572, 583, 585, 587, 596, 597, 598, 599, 610, 635.

Four credit hours: M.E. 581.

Lower Division Course

- 100. Engineering Orientation.** (1:1:0) A.W.S. Staff
Introduction to the fields and profession of engineering. Required for all freshman engineering students.

Upper Division Courses

- 320. Thermodynamics I.** (3:3:0) A. Prerequisites: Mathematics 234 and Physics 213. Staff
First law and applications, thermodynamic systems, properties of gases, liquids and vapors. Second law and applications, entropy; properties of gaseous mixtures, fluid flow; combustion.
- 321. Thermodynamics II.** (3:3:0) W. Staff
Continuation of M.E. 320.
- 322. Thermodynamics Applications.** (3:3:0) S. Staff
Continuation of M.E. 321, including gas and vapor cycles and applications to machinery; refrigeration; compression of gases; air-water vapor mixtures.
- 327. Elements of Thermodynamics.** (4:4:0) A.W. Prerequisites: Mathematics 234 and Physics 213. Staff
First and second laws; properties of systems; thermodynamics of gases and vapors; applications to thermodynamic cycles. Designed for students not majoring in mechanical engineering.
- 331. Manufacturing Processes.** (3:2:3) W. Staff
A survey of general manufacturing processes, including smelting, refining, casting, cutting, machining, welding, and joining of engineering materials. A course integrating lectures with field inspection trips to applicable industries.
- 360. Thermodynamics Laboratory I.** (2:1:3) A. Prerequisite: Mechanical Engineering 320 taken concurrently. Staff
Instruments for measuring pressure, temperature, speed, power, and area; flow meters; technical report writing.
- 367. Elements of Thermodynamics Laboratory.** (1:0:3) A.W.S. Staff
Laboratory to follow or accompany Mechanical Engineering 327.
- 410. Fluid Mechanics.** (4:3:3) A.W.S. Prerequisites: Mathematics 234, Civil Engineering 302, and Mechanical Engineering 320 or 323. Staff
Physical properties of fluids; fluid statics; viscous flow; dimensional analysis; incompressible flow; compressible flow; fluid meters; lift and drag; dynamic similarity; momentum; fluid machinery.
- 411. Fluid Dynamics.** (3:3:0) S. Staff
Continuation of Mechanical Engineering 410.

- 430. Kinematics of Machines.** (4:2:6) A. Prerequisite: Civil Engineering 302. Staff
Velocities and accelerations in machine parts; rolling contact; cams, gearing, flexible connectors, etc.
- 431. Machine Design I.** (3:3:0) W. Prerequisites: Mechanical Engineering 430 and Civil Engineering 303. Staff
Theory and design of machine elements; proportioning of machine parts according to the laws of mechanics and engineering materials.
- 432. Machine Design II.** (5:3:6) S. Staff
Continuation of Mechanical Engineering 431.
- 441. Heat Transfer.** (3:3:0) W. Prerequisites: Mechanical Engineering 322, 410, and Mathematics 317. Staff
Fundamental principles of heat transfer by conduction, convection, and radiation.
- 460, 461. Heat Power Laboratory I, II.** (2:1:3 ea.) W.S. Prerequisites: Mechanical Engineering 322 and 360. Staff
Steam Turbines; internal combustion engines; heat transfer; pumps; calorimetry; air compressors, refrigeration; steam generators; technical reports.

Advanced Undergraduate or Graduate Courses

- 520. Advanced Thermodynamics.*** (3:3:0) Prerequisites: Mechanical Engineering 322 and Mathematics 317. Staff
Extended treatment of the fundamentals of thermodynamics including transient conditions, equilibrium, combustion and real gases.
- 522. Fuels and Combustion.*** (3:3:0) Prerequisite: Mechanical Engineering 322. Staff
Properties of fuels; characteristics of air-fuel mixtures; combustion characteristics; calculations.
- 530. Principles of Automatic Control.** (3:3:0) W. Prerequisites: Mechanical Engineering 432 and Mathematics 317. Staff
Transfer functions applied to mechanical, hydraulic, pneumatic and electrical components, and their combination. Block diagrams, Nyquist and Routh Criteria, Bode's and Root Locus Plots. Integral and error rate compensation. Non-linear systems.
- 531. Special Topics in Machine Design.*** (3:3:0) Staff
Selected topics in the behavior of engineering materials and advanced mechanics of materials as applied to the design of machine members.
- 535. Mechanical Vibrations.** (4:3:3) A. Prerequisites: Mathematics 317 and Civil Engineering 303. Staff
Fundamentals of simple vibrating systems with applications.
- 541. Advanced Heat Transmission.*** (3:3:0) Prerequisite: Mechanical Engineering 441. Staff
Extension of Mechanical Engineering 441 to include numerical and approximate methods of solution, transient problems, and solution of problems by analogy methods.
- 551. Time and Motion Study.*** (3:2:3) Staff
Principles of motion economy, techniques of motion and time study and their interrelationship.
- 552. Production and Quality Control.*** (3:3:0) Staff
Basic concepts of quantitative and qualitative control in industrial organizations of both manufacturing and service types. To include principles of materials-handling affecting the above concepts.

- 571. Refrigeration.*** (3:3:0) Prerequisite: Mechanical Engineering 322. Staff
Cycles and analysis; selection of systems and component parts; estimation of loads.
- 572. Heating, Ventilating and Air Conditioning.*** (3:3:0) Prerequisite: Mechanical Engineering 322. Staff
Heating and cooling for comfort. Design of warm air, hot water and steam heating systems for residence and commercial buildings.
- 581. Internal Combustion Engines.*** (4:3:3) Prerequisite: Mechanical Engineering 322, 520. Staff
Basic principles; theoretical and actual cycles; performance characteristics.
- 583. Principles of Turbomachinery.*** (3:3:0) Prerequisites: Mechanical Engineering 322, 411. Staff
Analysis and design of all types of turbomachinery.
- 585. Jet Propulsion Power Plants.*** (3:3:0) Prerequisites: Mechanical Engineering 322, 411, 520. Staff
Analysis of cycles and performance of gas turbine, jet engine and rocket propulsion systems, including flow through component parts.
- 587. Power Plant Engineering.*** (3:3:0) Prerequisite: Mechanical Engineering 322 and 520. Staff
Analysis of power plants, including performance of prime movers, economics, and heat balance studies.
- 590. Mechanical Engineering Problems.** (1:0:3) S. Prerequisite: fifth year standing. Staff
Selected problems from the field which will enable the student to integrate his fundamental knowledge in their solution.
- 591, 592, 593. Seminar.** (1:1:0) A.W.S. Prerequisite: fifth year standing. Staff
Student and faculty presentation of topics of special and current interest.
- 596, 597, 598. Special Problems.*** (Arr.) Registration by permission. Staff
- 599. Undergraduate Research.** (Arr.) Prerequisite: consent of department chairman. Staff

Graduate Courses

- 610. Fluid Dynamics and Machinery.*** (3:3:0) Prerequisites: Mechanical Engineering 411 and Mathematics 317. Staff
Steady and unsteady flow of compressible and incompressible fluids; principles of operation of fluid dynamical machinery.
- 635. Advanced Vibration Analysis.*** (3:3:0) Prerequisite: Mechanical Engineering 535.
Vibration characteristics of systems with several degrees of freedom; elastic bodies; systems with transient vibrations, and simple non-linear systems.

*Offered upon approval of department chairman based upon sufficient demand.

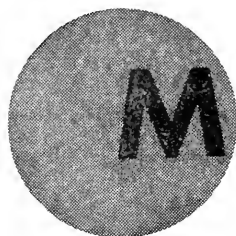
Medical Technology

(See College of Biological and Agricultural Sciences.)

Modern and Classical Languages

(See courses in Languages.)

Music



Professors: Halliday (chairman, 250 C), de Jong, Jepperson-Madsen (emeritus), Franklin Madsen (emeritus).

Associate Professors: Earl, Gates, Martino, Sardoni.

Assistant Professors: Buggert (emeritus), C. Cannon, Jr., Cundick, Gulbrandsen, Hansen (emeritus), Keeler, H. Laycock, R. Laycock, Nordgren, Wakefield, Weight, R. Woodward.

Instructors: Ballou*, Bos, Bradley, Bradshaw, Brownlee, Cheney, Curtis, Edleson*, Freed, Fitzroy, Fuerstner, Groesbeck, A. Mathews, McAllister (emeritus), R. Nibley, Nelson, Terry, Weininger, W. Wilkes, M. Woodward.

Music Majors

A baccalaureate degree in music can be taken with a major in applied music, music theory, or music education (secondary). The curriculum for a major in applied music or music theory leads to the Bachelor of Arts degree. The curriculum for a major in music education leads to either the Bachelor of Arts or the Bachelor of Science degree.

Music Minors

Any twenty hours in music constitutes a graduation minor.

Music Education Minors

Elementary:

Prospective elementary school teachers who desire a minor in music should take Music 101, 170, 190, 191, 192, 301, 3 hours of ensemble (band, orchestra, or chorus), and 6 hours of class or private piano.

Secondary:

A—Instrumental: Prospective secondary school teachers who desire a teaching minor in instrumental music take the following courses: Music 101, 190, 301, 302, 6 hours of band or orchestra; 10 hours from the following: 160-p, 360-p (on instrumental specialty), 368, 369, 370, 371, 372, 373, 375, 376.

B—Vocal: Prospective secondary school teachers who desire a teaching minor in vocal music take the following courses: Music 101, 6 hours of group and/or private voice, 190, 191, 301, 302, 366, 374, and 3 hours of vocal ensemble.

Degree in Applied Music

To receive a Bachelor of Arts degree with a major in applied music, a student must complete the following courses or their equivalent:

	Hours
Music 190, 191, 192, 290, 291, 292	26
Music 301, 302, 383 (count as religion)	6
Music 484, 485	6
*Private instruction on major instrument or voice	24
*Functional Piano	6
Ensemble	12

(Keyboard majors take 7 hours of ensemble plus 4 hours of Music 390, 391, and 1 hour of Music 466.)

Majors in the various fields of applied music must take certain special classes in addition to the above requirements:

Piano majors take Music 563, 564, 565.

Organ majors take Music 467, 468.

Woodwind majors take Music 368, 369.

Brass majors take Music 370, 371.

String majors take Music 372, 373.

Voice majors take Music 566, 567, 568.

*The hours to be taken in the specialty and functional piano may be reduced if a student has already had considerable training in these areas, determined by entrance examinations. At the end of each year of individual instruction, the student takes an examination in his specialty to determine his level of achievement. For the examination, the candidate submits a list of his repertoire indicating compositions or studies especially prepared for the examination. Forms on which record of the student's repertoire is kept and outlines of instrumental and vocal proficiency requirements are available at the Music Department office.

Majors in applied music (except keyboard majors—see ensemble requirements above) participate in a music ensemble each quarter of their undergraduate training. Instrumental majors participate in at least one instrumental ensemble and one vocal ensemble. Voice majors sing in at least two vocal ensembles.

A major in applied music must accumulate at least sixty minutes of recital appearance time either as soloist or chamber music ensemble performer.

The following sequence of courses is recommended for majors in applied music:

Freshman Year			
	A	W	S
Religion	2	2	2
English	3	3	3
Physical education	1	1	1
Music 190, 191, 192	4	4	4
Music 160-p	2	2	2
Ensembles	1	1	1
Health 130		2	
Electives (Music 107, 108, 109, if needed)	2	2	2
or	3	3	3
Total Hours	15	17	15
or	16	18	16

Sophomore Year			
	A	W	S
Religion	2	2	2
Language (first or second year)	5	5	5
Music 290, 291, 292	5	5	4
Music 160-p	2	2	2
Ensembles	1	1	1

Electives	2	2	2
Total Hours	17	17	16

Junior Year			
	A	W	S
Religion (Music 301, 302, 383)	2	2	2
Language (second year)	5	5	
Music 360-p	2	2	2
Ensembles	1	1	1
General education	6	6	11
Total Hours	16	16	16

Senior Year			
	A	W	S
Religion	2	2	2
Music 484, 485	3	3	
Music 360-p	2	2	2
Ensembles	1	1	1
General education	3	3	6
Electives (this must include the special music classes)	5	5	5
Total Hours	16	16	16

Degree in Music Theory

For a Bachelor of Arts degree with a major in music theory, a student must complete the following courses or their equivalent:

	Hours
Music 190, 191, 192, 290, 291, 292	26
Music 301, 302, 383 (count as religion)	6
Music 390, 391	4
Music 484, 485	6
Art 501	3
Courses in advanced music literature	6
Graduate courses in music theory	15
Ensemble	6
*Individual instruction in specialty	6
*Functional piano	12

*The hours to be taken in individual or group instruction may be reduced if a student has already had considerable training in these areas, determined by entrance examinations. At the end of each year of individual instruction the student takes an examination on his major instrument or in voice to determine his level of achievement. For the examination, each candidate submits a list of his repertoire indicating compositions or studies especially prepared for the examination. Forms on which record of the student's repertoire is kept and outlines of instrumental and vocal proficiency requirements are available at the Music Department office.

Majors in music theory participate in musical ensembles a minimum of six quarters of undergraduate training. The student performs in at least two ensembles. A student whose specialty is a band or orchestral instrument takes three hours of instrumental ensemble and three hours of choral ensemble. A student whose specialty is voice sings in at least two vocal ensembles.

The ability to play the piano is an indispensable tool for music theory majors; consequently, every major in music theory must pass a piano proficiency examination (second year standards) during the first quarter of residence or take group or individual piano instruction until he passes the examination.

The following sequence of courses is recommended for majors in music theory.

Freshman Year				Junior Year			
	A	W	S		A	W	S
Religion	2	2	2	Religion	2	2	2
English	3	3	3	Language (second year)	5	5	
Physical education	1	1	1	Music 390, 391	2	2	
Music 190, 191, 192	4	4	4	Music 485, 486	3	3	
Music 160-p (specialty)	2	2	2	General education require-			
Ensembles	1	1	1	ments:			
Health 130		2		History 180	5		
Electives (Music 107, 108,				Social science		5	5
109, if needed)	2	2	2	Biological science			5
or	3	1	3	Physical science			5
Total Hours	15	17	15	Total Hours	17	17	17
or	16	16	16				
Sophomore Year				Senior Year			
	A	W	S		A	W	S
Religion (Music 301, 302,				Religion	2	2	2
383)	2	2	2	Music theory (grad. courses)	6	6	3
Language (first or second				Advanced courses in Mu. Lit.	2	2	2
year)	5	5	5	Art 501		3	
Music 290, 291, 292	5	5	4	General education require-			
Ensembles	1	1	1	ments:			
Private piano	2	2	2	Biological science	3		
Electives	2	2	3	English (literature)		3	
Total Hours	17	17	17	Physical science			4
				Electives	3		5
				Total Hours	16	16	16

Degrees in Music Education

Prospective secondary school teachers may elect a composite music education major, a composite vocal major, or a composite instrumental major. For a listing of the course requirements in these three majors see the College of Education section of this catalog.

The following sequence of courses is recommended for a Bachelor of Arts degree with a Composite Music Education major and a general secondary teacher's certificate:

Freshman Year

	A	W	S
Religion	2	2	2
English	3	3	3
Physical Education	1	1	1
Health 130		2	
Music 107, 108, 109	2	2	2
Music 190, 191, 192	4	4	4
Music 363, 364, 365	1	1	1
Music 368			2
Individual instruction on specialty	2	2	2
Ensemble (Band, Orch., Chorus)	1	1	1
Total Hours	16	18	18

Sophomore Year

	A	W	S
Religion (Music 301, 302, 383)	2	2	2
Language (1st or 2nd year)	5	5	5
Music 290, 291, 292	5	5	5
Music 366	2		
Music 367	1		
Music 369, 370, 371	2	2	2
Music 373			2
Music 374			1
Individual instruction on specialty	2	2	2
Ensemble	1	1	1
Literature			3
Total Hours	20	20	19

Junior Year

	A	W	S
Religion	2	2	*2
Language (2nd year)	5	5	
Chemistry 100	3		
Geol. 101		3	
Instr. 301	2		
Music 377		3	
Music 479			12
Music 373	2		
Music 376	1		
Music 484, 485	3	3	
Music 375		1	
Music 378		2	
Total Hours	18	19	14

*by Home Study since student will be off campus.

Senior Year

	A	W	S
Religion	2	2	2
Psychology 103			3
Health Education 362		3	
Botany 101		5	
Zoology 176			3
Sociology 111			5
History 170 or 180	5		
Psychology 111		5	
Music 405	3		
E.R.S. 403	5		
Ed. Adm. 310			3
Ed. Phil. 415		3	
Individual instruction on specialty	2	2	2
Total Hours	17	20	18

The following sequence of courses is recommended for a Bachelor of Science degree with a composite music education major and a general secondary teacher's certificate:

Freshman Year

	A	W	S
Religion	2	2	2
English	3	3	3
Physical Education	1	1	1
Health 130		2	
Music 107, 108, 109	2	2	2
Music 190, 191, 192	4	4	4

Music 363, 364, 365	1	1	1
Music 368			2
Individual instruction on specialty	2	2	2
Ensemble (Band, Orch., Chorus)	1	1	1
Total Hours	16	18	18

Sophomore Year			
Religion (Music 301, 302, 383)	2	2	2
Psychology 111	5		
Chemistry 100		3	
Music 290, 291, 292	5	5	4
Music 366	2		
Music 367	1		
Music 369	2		
Music 370, 371		2	2
Music 372		2	
Music 374		1	
Individual instruction on specialty	2	2	2
Ensembles	1	1	1
Total Hours	15	17	17

Junior Year			
	A	W	S
Religion	2	2	*2
Geology 101	3		
Literature	3	3	
History 312		3	
Instr. 301	2		
Music 350		3	
Music 479		12	

Music 373	2		
Music 375		1	
Music 376	1		
Music 378		2	
Music 484, 485	3	3	

Total Hours 16 17 14
 *by Home Study, since the student will be off campus.

Senior Year			
	A	W	S
Religion	2	2	2
Physics 103	3		
Botany 101		5	
Zoology 176			3
History 170 or 180			5
Sociology 111	5		
Health Education 362	3		
Music 405	3		
E.R.S. 403	5		
Ed. Phil. 415		3	
Ed. Adm. 310			3
Individual instruction on specialty	2	2	2
Total Hours	18	17	15

Recommended course sequences for composite vocal and composite instrumental majors are available at the Music Department office.

Lower Division Courses

101. **Survey Course in Music.** (3:3:0) A.W.S. (G-HA) Earl, Wakefield, Wilkes
 Non-technical introduction to the fundamental concepts of melody, rhythm, harmony, form, etc. as a basis for understanding and enjoying the masterpieces of our musical heritage. Open to all students without previous training in music.
102. **Fundamentals of Music.** (3:3:0) A.W.S. Groesbeck, Terry
 Introductory course in music fundamentals, especially designed for public school teachers.
103. **Introduction to Music Literature.** (3:3:0) A.W.S. (G-HA) Earl, Wakefield, Wilkes
 A study of concert music classics from the Renaissance to the present, their styles, forms, and composers, through listening to live and recorded music. No prerequisite, but designed for students with some experience in music, such as Music 101, playing, or singing experience.
105. **Class Piano for Beginners in Music.** (2:2:0) A.W.S. Bradshaw, Brownlee
 Minimum of one hour daily practice required outside of class. Instruction in notation of music and in keyboard technique, especially designed for prospective elementary school teachers.
106. **Class Piano for Beginners in Music.** (2:2:0) W.S. Prerequisite: Music 105. Staff
 Minimum of one hour daily practice required outside of class. Continuation of Music 105.
- 107, 108, 109. **Group Piano Instruction.** (2:2:0 ea.) A.W.S. Keeler, Wakefield
 Not open to piano majors. Class instruction designed for those music majors and minors who cannot pass the piano proficiency examination.
110. **University Chorale.** (1:0:3) A.W.S. (G-HA) R. Woodward

- 116. Male Chorus.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
R. Woodward
- 119. Women's Chorus.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
Gulbrandsen
- 122. Madrigal Singers.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
Halliday
- 125. A cappella Choir.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
Weight
- 128. Opera Workshop.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
Earl, Curtis
- 131. Oratorio Choir.** (1:0:2) A.W.S. Prerequisite: consent of director.
R. Woodward
- One two-hour rehearsal each week. Recommended for all members of University Chorale, Male Chorus, Women's Chorus, Madrigal Singers, A cappella Choir, and Opera Workshop. Performs one or more oratorios each year, sings at certain devotional assemblies, General Conference, and baccalaureate and commencement exercises.
- 135. Varsity and Marching Band.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
Staff
- 138. Concert Band.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
R. Laycock
- 141. Chamber Orchestra.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
H. Laycock
- 144. Theatre Orchestra.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
Earl
- 147. Symphony Orchestra.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
Sardoni
- 150. Brass, Piano, Ancient Instrument, String, Vocal, or Woodwind Ensemble.**
(1:0:3) A.W.S. (G-HA)
Ballou, Earl, Edlefsen, Fuerstner,
Gulbrandsen, Nordgren, Sardoni, Wakefield,
Weinzinger, R. Woodward
- 160-p. Private Instruction.** (2:1:0) A.W.S. (G-HA) Ten half-hour lessons per quarter. Special fee.
Brass: trumpet, cornet, French horn, trombone, baritone, tuba.
Ballou, A. Laycock, Martino
Harp: Bradley
Harpsichord: Wakefield
Organ: Keeler
Percussion: Johnson, R. Laycock, Martino
Piano: Bradshaw, Brownlee, Cannon, Cundick, de Jong,
Fitzroy, Fuerstner, Gates, Keeler, Nelson, Wakefield
Recorder: Cannon, Wakefield
Strings: violin, viola, 'cello, string bass. H. Laycock, R. Nibley
Nordgren, Sardoni
Voice: Cheney, Curtis, Earl, Gulbrandsen, Halliday,
Jepperson-Madsen, F. Madsen, A. Mathews, McAllister, Terry,
Weight, Weinzinger, M. Woodward, R. Woodward
Woodwinds: flute, oboe, clarinet, bassoon, saxophone.
Bos, Edlefsen, R. Laycock
- 170. Group Vocal Instruction.** (1:2:0) A.W.S. Terry, Weinzinger
Class instruction for beginners in vocal production.

- 190, 191, 192. **First Year Basic Theory.** (4:5:3 ea.) A.W.S. Students who have a deficiency in piano keyboard technique must register for Music 107 or Music 160-p (piano) simultaneously with Music 190.
Brownlee, Bradshaw, Cundick, Edlefsen, H. Laycock, Nordgren
Tonal harmony: part writing; melodic, rhythmic, and harmonic dictation; keyboard work; sight singing; ear training; modulation, analysis, simple forms.
237. **Music for Elementary School Teachers.** (3:3:0) A.W.S. Prerequisite: Music 102 or equivalent. Groesbeck, Terry
Fundamental concepts and skills in music. Materials and procedures for developing various phases of music in the elementary school. Relationship of music to the rest of the school program.
263. **Piano Accompanying.** (1:0:3) A.W.S. Staff
- 290, 291. **Second Year Basic Theory.** (5:5:3 ea.) A.W. Prerequisite: Music 192 or equivalent. Cundick, H. Laycock, Nordgren
Diatonic and chromatic harmony, chorale harmonization, harmonic counterpoint, ear-training, keyboard harmony.
292. **Second Year Basic Theory.** (4:5:3) S. Cundick, H. Laycock, Nordgren
Form and analysis, arranging for small choral and instrumental groups, introduction to 16th century counterpoint, elementary composition, ear training.
293. **Refresher Course in Dictation.** (2:0:5) A. Staff
Course designed for transfer and for graduate students who have had two years of Basic Musicianship but who need to refresh themselves in order to be qualified to take more advanced work in music.
294. **Refresher Course in Music Theory and Part Writing.** (2:0:5) W. Staff
Course designed to help transfer and graduate students regain the necessary understanding and skills needed to do more advanced work in music.

Upper Division Courses

301. **Elementary Baton Technique and Hymnody.** (2:2:0) A.W.S. (G-HA; G-R) Staff
302. **Intermediate Baton Technique and Ward Choir Direction.** (2:2:0) A.W.S. (G-HA; G-R) Weininger, R. Woodward
307. **Group Organ Instruction.** (2:2:0) A.W.S. Prerequisite: Advanced standing as a pianist. Admission by consent of instructor. Staff
310. **University Chorale.** (1:0:3) A.W.S. (G-HA) R. Woodward
316. **Male Chorus.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director. R. Woodward
319. **Women's Chorus.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director. Gulbrandsen
322. **Madrigal Singers.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director. Halliday
325. **A cappella Choir.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director. Weight
328. **Opera Workshop.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director. Curtis, Earl

- 331. Oratorio Choir.** (1:0:2) A.W.S. Prerequisite: consent of director.
R. Woodward
One two-hour rehearsal each week. Recommended for all members of University Chorale, Male Chorus, Women's Chorus, Madrigal Singers, A cappella Choir, and Opera Workshop. Performs one or more oratorios each year, sings at certain devotional assemblies. General Conference, and baccalaureate and commencement exercises.
- 335. Varsity and Marching Band.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
Staff
- 338. Concert Band.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
R. Laycock
- 341. Chamber Orchestra.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
H. Laycock
- 344. Theatre Orchestra.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
Earl
- 347. Symphony Orchestra.** (1:0:5) A.W.S. (G-HA) Prerequisite: consent of director.
Sardoni
- 350. Brass, Piano, Ancient Instrument, String, Vocal, or Woodwind Ensemble.** (1:0:3) A.W.S. (G-HA) Ballou, Earl, Edlefsen, Fuerstner, Gulbrandsen, Nordgren, Sardoni, Wakefield, Weinzinger, R. Woodward
- 360-p. Private Instruction.** (2:1:0) A.W.S. (G-HA) Ten half-hour lessons per quarter. Special fee.
(For staff see Music 160-p)
- 363, 364, 365. Vocal Workshop I.** (1:0:2 ea.) A.W.S. R. Woodward
Voice building, designed for music education majors. Survey of solo literature.
- 366. Vocal Workshop II.** (2:0:4) A. Prerequisite: Music 365 or its equivalent.
R. Woodward
Problems of group singing; designed for music education majors. Survey of ensemble literature.
- 367. Percussion Workshop.** (1:0:2) A. Prerequisite: Music 192 or its equivalent.
R. Laycock
Designed to help music education majors learn to play and to teach percussion instruments. Survey of materials.
- 368. Woodwind Workshop I.** (2:0:4) S. Prerequisite: Music 192 or its equivalent.
R. Laycock
Designed to help music education majors to play and to teach clarinet and saxophone. Survey of materials.
- 369. Woodwind Workshop II.** (2:0:4) A. Prerequisite: Music 368 or equivalent.
Edlefsen
Designed to help music education majors learn to play and to teach flute, oboe, and bassoon. Survey of materials.
- 370. Brass Workshop I.** (2:0:4) W. Prerequisite: Music 192 or its equivalent.
Staff
Designed to help music education majors learn to play and to teach trumpet, baritone horn, and French horn. Survey of materials.
- 371. Brass Workshop II.** (2:0:4) S. Prerequisite: Music 370 or equivalent.
R. Laycock, Martino
Designed to help music education majors learn to play and to teach trombone and tuba. Survey of materials.
- 372. String Workshop I.** (2:0:4) S. Prerequisite: Music 192 or its equivalent.
Sardoni
Designed to help music education majors learn to play and to teach violin. Survey of materials.

- 373. String Workshop II.** (2:0:4) A. Prerequisite: Music 372 or equivalent.
Sardoni
Designed to help music education majors learn to play and to teach viola, 'cello, and string bass. Survey of materials.
- 374. Choral Practicum.** (1:0:3) S. Prerequisite: Music 301, 302, 365, 366, or equivalent.
Weight, R. Woodward
Designed for music education majors. Experience in choral conducting and singing of typical school materials. Observation and application of rehearsal techniques.
- 375. Orchestra Practicum.** (1:0:3) W. Prerequisite: Music 301, 302, 372, 373, or equivalent.
Sardoni
Designed for music education majors. Experience in orchestra conducting and playing of typical school materials on their minor instruments. Observation and application of rehearsal techniques.
- 376. Band Practicum.** (1:0:3) A. Prerequisite: Music 301, 302, 368, 369, 370, 371, or equivalent.
R. Laycock, Martino
Designed for music education majors. Experience in band conducting and playing of typical school materials on the students' minor instruments. Observation and application of rehearsal techniques.
- 378. General Music Practicum.** (2:0:3) W. Prerequisite: Music 292, 383, and 484.
Martino, Terry
Designed for music education majors. Experience in materials, methodology, and management of the general music program in the public schools.
- 383. History of Sacred Music.** (2:2:0) S. Home Study also. (G-HA; G-R) Prerequisite: Music 192 or equivalent.
Cannon, Wakefield
- 390, 391. Harmony at the Keyboard.** (2:2:2 ea.) A.W. Prerequisite: Music 192 and moderately advanced keyboard technique.
Keeler
Harmonization of figured and unfigured basses and other voices; cadences, sequences, transpositions, modulations, and improvisations at the keyboard.
- 463. Piano Accompanying.** (1:0:3 ea.) A.W.S. Staff
- 466. The Art of Piano Accompaniment.** (1:2:0) A. Fuerstner
- 467, 468. Organ Problems.** (3:3:0 ea.) A.W. Prerequisite: advanced standing as an organ student and consent of instructor.
Keeler
Registration, accompaniment playing, and related problems.
- 484, 485. History of Secular Music.** (3:3:0 ea.) A.W. Home Study also. (G-HA) Prerequisite: Music 192, or Music 101 and 102, or equivalent.
Cannon, Wakefield
- 486x. A Survey of the Music of the 19th and 20th Centuries.** (3) Home Study only. Prerequisite: Music 484. Wakefield
- 487. Music Literature Composed Before 1750.** (2:2:0) A. (G-HA) Prerequisite: Music 485. Staff
- 488. Music Literature Composed Since 1750.** (2:2:0) W. (G-HA) Prerequisite: Music 485. Staff
- 489. Music in America.** (2:2:0) S. (G-HA) Prerequisite: Music 485. Wilkes

Advanced Undergraduate or Graduate Courses

- 563, 564. Piano Repertoire.** (1:2:0 ea.) W.S. Prerequisite: advanced standing as a pianist. Fuerstner

- 565. Piano Pedagogy.** (3:3:0) S. Prerequisite: advanced standing as a pianist.
Keeler
Methods, materials, and problems in teaching piano.
- 566, 567. Vocal Repertoire.** (1:2:0 ea.) W.S. Prerequisite: Advanced standing
as a singer. Weinzinger
- 568. Vocal Pedagogy.** (3:3:0) W. Prerequisite: advanced standing as a singer.
Gulbrandsen, Weight
Methods, materials, and problems in teaching voice.
- 587, 588, 589. Composition.** (3:3:0 ea.) A.W.S. Prerequisite: Music 292 or equivalent.
Fuerstner

MUSIC EDUCATION

- 377. Secondary Teaching Procedures.** (3-4:3:1) W. Prerequisite: Instruction
301. Martino
For course description and fees see Instruction 377.
- 405. Analysis of Teaching.** (3:3:0) A. Prerequisite: Music 479. Martino
For course description see Instruction 405.
- 478. Unit Planning and Teaching.** (4:3:5) A. Prerequisite: Music 377. Martino
For course description see Instruction 478.
- 479. Secondary Student Teaching.** (7-12:0:30) S. Prerequisite: Music 377.
Martino
For course description and fees see Instruction 479.

Graduate Courses

- 537x. Music for Elementary School Teachers—Advanced.** (3) Extension course
only. Prerequisite: Music 237 or equivalent. Groesbeck, Terry
- 601. Music in the Elementary School.** (3:3:0) A. Prerequisite: Music 237 and
the equivalent of an elementary education teaching minor in music.
Groesbeck
- 602. Music Education Supervision.** (3:3:0) W. Prerequisite: Music 237 and the
equivalent of an elementary education teaching minor in music. Groesbeck
- 605. Influence of Music on Behavior.** (3:3:0) A. Martino
Required of all graduate students majoring in music education.
- 606. Functional Music.** (3:3:0) W. Martino
Required of all graduate students majoring in music education.
- 610. Music Arranging for Small Groups.** (3:3:0) W. Prerequisite: Music 292 or
equivalent. R. Laycock
May be counted either as music education or music theory.
- 612. Music Education in Society.** (3:3:0) S. Martino
Required of all graduate students majoring in music education.
- 613. Music Education Management.** (3:3:0) A. Martino
Required of all graduate students majoring in music education.
- 615. Vocal Methods, Materials, and Resources.** (3:3:0) S. Prerequisite: Music
479 or equivalent. Woodward
- 616. Instrumental Methods, Materials, and Resources.** (3:3:0) W. Prerequisite:
Music 479 or equivalent. H. Laycock
- 620. Advanced Conducting.** (3:3:2) A. Prerequisite: Music 374, 375, 376, or
equivalent. R. Laycock, Sardoni
- 625. Summer Music Clinic.** (3:4:4 for two weeks during Clinic) Su.
Sardoni, Staff
May be counted either as music education or applied music.

- 635. Musical Research Techniques.** (2:2:0) A. Earl
Required of all candidates who write a thesis or dissertation.
- 637. *History and Literature of Music Through the Renaissance.** (5:5:0) A. Pre-
requisite: Music 485 or equivalent. Wilkes
- 638. *History and Literature of Music in the Baroque and Classical Periods.** (5:
5:0) W. Prerequisite: Music 485 or equivalent. Wilkes
- 639. *History and Literature of Music in the Romantic and Modern Periods.** (5:
5:0) S. Prerequisite: Music 485 or equivalent. Wilkes
- *Music 637, 638, 639 constitute a core-course in musicology and are required for
graduate degree with a major or minor in musicology.
- 640, 641, 642. Symphonic Music.** (2:2:0 ea.) A.W.S. Not given in 1959-60. Pre-
requisite: Music 485 or equivalent. Wilkes
- 643, 644, 645. Chamber Music.** (2:2:0 ea.) A.W.S. Prerequisite: Music 485 or
equivalent. Wakefield
- 646, 647, 648. Operatic Music.** (2:2:0 ea.) A.W.S. Not given in 1959-60. Pre-
requisite: Music 485 or equivalent. Earl
- 649, 650, 651. Choral Music.** (2:2:0 ea.) A.W.S. Prerequisite: Music 485 or
equivalent. Weight, R. Woodward
- 652. The History of Musical Notation.** (2:2:0) W. Not given in 1959-60. Pre-
requisite: Music 485 or equivalent. Staff
- 653. The History of Musical Instruments.** (2:2:0) W. Not given in 1959-60. Pre-
requisite: Music 485 or equivalent. Wakefield
- 656. Hymnology.** (2:2:0) A. Prerequisite: Music 485 or equivalent. Weight
- 660-p. Private Instruction.** (2:1:0 ea.) A.W.S. Ten lessons per quarter. Special
fee.
Brass: trumpet, cornet, French horn, trombone, baritone, tuba.
Ballou, R. Laycock, Martino
Harp: Bradley
Harpsichord: Wakefield
Organ: Keeler
Percussion: R. Laycock, Martino
Piano: Bradshaw, Brownlee, Cannon, Cundick, de Jong,
Fuerstner, Gates, Keeler, Wakefield
Recorder: Cannon, Wakefield
Strings (violin, viola, 'cello, string bass): H. Laycock, R. Nibley,
Nordgren, Sardoni
Voice: Curtis, Earl, Gulbrandsen, Halliday,
Weight, Weininger, Woodward
Woodwinds (flute, oboe, clarinet, saxophone, bassoon):
Bos, Edlefsen, R. Laycock
- 663. Solo Recital.** (3:0:6-10) A.W.S. Staff
Required of all graduate students minoring in applied music.
- 670, 671, 672. Counterpoint.** (3:3:0) A.W.S. Prerequisite: Music 292 or equiva-
lent. Cundick, Gates
- 675. Materials of Modern Music.** (3:3:0) S. Prerequisite: Music 292 or equivalent.
Bradshaw, Gates
- 676, 677. Form and Analysis.** (3:3:0) A.W. Prerequisite: Music 292 or equivalent.
Bradshaw, Gates

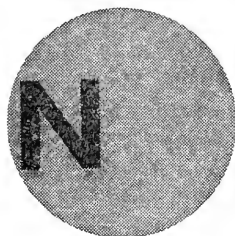
- 680, 681, 682. Instrumentation and Orchestration.** (3:3:0 ea.) A.W.S. Prerequisite: Music 292 or equivalent. Cundick, Gates
- 685. History of Music Theory.** (3:3:0) W. Prerequisite: Music 292 or equivalent. May count either as music theory or musicology. Nordgren
- 686. Pedagogy of Music Theory.** (3:3:0) S. Prerequisite: Music 292 or equivalent. May be counted either as music theory or music education. Nordgren
- 687, 688, 689. Composition.** (3:3:0 ea.) A.W.S. Prerequisite: Music 292 or equivalent. Fuerstner, Gates
- 692. Seminar in Music Education.** (2:2:0) W. Martino
Required of all graduate students majoring in music education.
- 693, 694. Seminar in Musicology.** (1:1:0 ea.) W.S. Prerequisite: Music 485, 635, or equivalent. Cannon, Earl, Wilkes
Required of all graduate students majoring in musicology.
- 695. Special Readings in Music Education.** (2:1:5) A.W.S. Martino
- 698. Composition for Master's Degree.** (Arr.) A.W.S. Staff
Candidates for the master's degree with composition emphasis are required to show ability to compose before work is started on the composition submitted in partial fulfillment of requirements for the master's degree.
- 699. Thesis for Master's Degree.** (Arr.) A.W.S. Staff
Candidates for the master's degree are required to show competence in writing and research before work is started on the thesis.
- 737, 738, 739. The Age of Palestrina.** (3:3:0 ea.) A.W.S. Not given in 1959-60. Prerequisite: Music 637, 638, 639, or equivalent. Staff
- 740, 741, 742. The Age of Bach.** (3:3:0 ea.) A.W.S. Prerequisite: Music 637, 638, 639, or equivalent. Wakefield
- 743, 744, 745. Mozart through Beethoven.** (3:3:0 ea.) A.W.S. Prerequisite: Music 637, 638, 639, or equivalent. Wilkes
- 746, 747, 748. Schubert through Brahms.** (3:3:0 ea.) A.W.S. Not given in 1959-60. Prerequisite: Music 637, 638, 639, or equivalent. Staff
- 749, 750, 751. Music in the 20th Century.** (3:3:0 ea.) A.W.S. Not taught 1959-60. Prerequisite: Music 637, 638, 639 or equivalent. Wilkes
- 787, 788, 789. Advanced Composition.** (3:3:0 ea.) A.W.S. Prerequisite: Music 687, 688, 689, or equivalent. Fuerstner, Gates
- 799. Dissertation for the Doctor of Philosophy Degree.** (Arr.) A.W.S. Staff
Candidates for the doctor of philosophy degree are required to show competence in writing and research before work is started on the dissertation.

The following courses also count in Music:

Art. 501. Aesthetics. (3:3:0)

Humanities 459. Lyric Theatre. (3:3:0)

Nursing



Associate Professors: Chapman (dean, 2240 SFLC), Jenny.

Assistant Professors: V. Babcock, Bloom, Gaty, Kohler, Schindler.

Instructors: M. Allred, Alward, Barkdull, L. Bennion, Bethers, Oniki, Potter, Smiley, Stevensen, A. Wilson.

Requirements for a Major and Minor

The following program includes the requirements for a **combined** major and minor in nursing.

Freshman Year

	A	W	S
English 111, 112, 113	3	3	3
Religion	2	2	2
Physical Education	1	1	1
Chemistry 101, 102, 103	5	4	3
Psychology 111	5		
Sociology 111		5	
Zoology 109			5
Food and Nutrition 115			3
Total Hours	16	15	17

Sophomore Year

	A	W	S	Su
H.D.F.R. 210	3			
H.D.F.R. 211	1			
History 170 or 180		5		
Bacteriology 121	4			
Zoology 261	4			
Nurs. 201, 202, 203, 320 ..	3	3	6	2
211, 212, 213, 304	2	4	5	6
218, 220, 314	2	3	5	

Physics 102	3			
Religion			2	2
Total Hours	17	17	16	15

Junior Year

	A	W	S	Su
Humanities	3	3	3	
Religion		2	2	2
Sociology 403	3			
Nurs. 352, 421, 348, 351 ..	4	6	4	4
362, 431, 340, 361	5	5	4	5
380, 429	2	1		
Total Hours	17	17	13	11

Senior Year

	A	W	S
Humanities			6
Religion	2	2	2
Nursing 405, 477, 470	6	4	2
415, 475, 490	5	3	2
485, 488		5	5
Total Hours	13	14	17

For Non-Nursing Majors:

Lower Division Course

288. **Family Health and Home Nursing.** (2:1:3) A.W.S. Jenny, Staff
Essential knowledge and attitudes about healthful family living. Skills in giving home nursing care to the sick or injured. Essentials of maternal health and child care.

For Majors in Nursing:

Lower Division Courses

201. **Fundamentals of Nursing.** (3:3:0) A. Babcock
Introduction to fundamental needs of an individual in health and illness, community resources to meet these needs, and the nurse's role in relation to these needs. Theory and principles relating to basic nursing skills and techniques in patient care.

- 202. Fundamentals.** (3:3:0) W. Prerequisite: Nursing 201. Babcock
Continuation of theory of basic nursing skills and techniques involved in comprehensive nursing care.
- 203. Introduction to Medical-Surgical Nursing.** (6:6:0) S. Prerequisites: Nursing 202, 218. Staff
Study of medical-surgical nursing from the standpoint of symptoms which cause the individual to seek medical-surgical care. Includes beginning study of disease conditions, diet therapy and pharmacology.
- 211. Fundamentals Laboratory.** (2:0:6) A. Prerequisite: concurrent registration in Nursing 201. Babcock, Staff
Introductory clinical course to enable the student to develop competency in fundamental nursing skills and techniques.
- 212. Fundamentals Laboratory.** (4:0:12) W. Prerequisite: concurrent registration in Nursing 202. Babcock, Staff
Continuation of clinical course in more complex fundamental nursing skills and techniques.
- 213. Introduction to Medical-Surgical Nursing Laboratory.** (5:0:25) S. Prerequisite: concurrent registration in Nursing 203. Staff
Experience in nursing care of patients with symptoms and disease conditions studied in Nursing 203; emphasis on the responses of the patient, his family, and the nurse. Continued application of basic nursing skills and understandings essential in meeting physical, emotional, and social needs of the patient.
- 218. Pharmacy and Pharmacology.** (2:1:2) W. Prerequisite: credit or concurrent registration in Nursing 212. Staff
Drugs, actions, dosages, administration, and mathematics.
- 220. Practical Aspects of Medical-Surgical Nursing.** (3:3:0) S. Staff
Introduction to the types and scope of health problems, social aspects of illness, accident prevention, and basic knowledges of medical science.

Upper Division Courses

- 304. Intermediate Medical-Surgical Nursing.** (6:6:0) A.Su. Prerequisites: Nursing 203 and 220. Gaty
Continuation of medical-surgical nursing, organized around problems of patients with impairment or loss of essential body functions: digestive, excretory, reproductive, respiratory, and circulatory.
- 314. Intermediate Medical-Surgical Nursing Laboratory.** (5:0:25) A.Su. Oniki
Experience in nursing care related to and correlated with Nursing 304.
- 320. Eye, Ear, Nose and Throat Nursing.** (2:2:0) Su. Alward
Study of eye, ear, nose and throat conditions and development of skills essential to the care of patients with these conditions.
- 340. Orthopedic Nursing.** (4:2:20) A.W.S.Su. Five-week block. Gaty, Wilson
Nursing care of patients requiring correction of deformities of diseases and defects of the musculo-skeletal system. Includes application of learned principles to care of children with orthopedic defects.
- 348. Operating Room Nursing.** (4:2:20) A.W.S.Su. Five-week block. Prerequisites: Nursing 203 and 213. Schindler
Functions of the nurse in the operating room with emphasis on techniques and the understanding and application of the principles of asepsis.
- 351. Maternal and Child Care.** (4:4:0) A.W.Su. Prerequisites: Nursing 203, 348. Kohler, Alward
Study of the complete nursing care of the mother throughout the maternity cycle including preparation for parenthood and family-centered maternity nursing; care of the newborn infant.
- 352. Nursing Care of Children.** (4:4:0) A.W.S.Su. Prerequisites: Nursing 203, 220. Potter, Wilson
Study of the care of the child in health and illness from the standpoint of his total well-being; physical, mental, emotional and social. The emphasis

is on the child as an individual and as a member of the family as well as the preventive, medical, and nursing aspects of child care.

361. **Maternal and Child Care Laboratory.** (5:0:25) A.W.Su. Concurrent registration in Nursing 351. Kohler, Alward
Experience in the care of the obstetric patient in the physician's office, maternity clinics, and the hospital maternity divisions; care of the infant in premature and newborn nurseries.
362. **Nursing Care of Children Laboratory.** (5:0:25) A.W.S.Su. Concurrent registration in Nursing 352. Potter, Wilson
Experience in the care of the child in the hospital, pediatrician's office and pediatric clinics.
380. **Trends in Nursing.** (2:2:0) A. Staff
Study of relationships, origin, and development of nursing to present patterns of nursing.
405. **Advanced Medical-Surgical Nursing.** (6:6:0) A.W.Su. Prerequisite: Nursing 304. Gaty, Stevensen, Bethers, Oniki
Continuation of medical-surgical nursing, with emphasis on advanced understanding and skills in meeting complex nursing problems.
415. **Advanced Medical-Surgical Nursing Laboratory.** (5:0:25) A.W.Su. Five-week block. Gaty, Stevensen, Bethers, Oniki
Experience in nursing care related to and correlated with Nursing 405.
421. **Psychiatric Nursing and Mental Health.** (6:6:0) W.S.Su. Bloom
Basic concepts in prevention, diagnosis, and treatment of mental illness, and implications for nursing. Development of appreciation of the functions of the psychiatric team.
429. **Comprehensive Nursing of the Aging Population.** (1:1:0) W.S.Su. Bloom
Study of the normal behavior of the aged; physical, emotional, and social needs and how they can be met; specific application to the ill person. Laboratory experience integrated with concurrent clinical experience.
431. **Psychiatric and Mental Health Nursing Laboratory.** (5:0:25) W.S.Su. Prerequisite: concurrent registration in Nursing 421. Bloom
Experience in nursing care of the acute and convalescent mentally ill. Observation of selected patients receiving intensive analytic and somatic therapy.
470. **Management.** (2:2:0) S. Schindler
Principles of organization and their application in the nursing situation. Activities of the nurse as a leader of the nursing team and responsibilities of the head nurse.
475. **Principles of Public Health Nursing.** (3:3:0) A.W.S. Prerequisite: concurrent registration in Nursing 485. Jenny
Meaning and functions of public health nursing; application of principles of comprehensive nursing in the home or community setting.
477. **Public Health Sciences.** (3-4:3-4:0) A.W.S. Prerequisite: concurrent registration in Nursing 485. Jenny, Staff
Meaning and scope of public health, public health organization and programs dealing with epidemiology, statistics, environmental control, maternal-child health, school health, chronic diseases, and geriatrics.
485. **Public Health Nursing Laboratory.** (5:0:30) A.W.S. Prerequisite: concurrent registration in Nursing 475, 477. Jenny, Staff
Experience in a public health nursing agency in giving comprehensive nursing care to families and in working with allied professional workers and community agencies.
488. **Comprehensive Nursing.** (5:0:25) S. Staff
Principles and methods of correlating health, social, and emotional aspects of nursing in planning comprehensive nursing care.
490. **Senior Seminar.** (2:2:0) S. Chapman
Opportunities and responsibilities inherent in the profession of nursing; emphasis on organizations, legislative controls, and fields of nursing. Survey of problems confronting the graduate professional nurse.

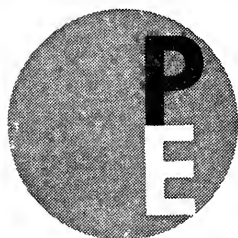
Professors: C. J. Hart (chairman, men, 222 SFH), Holbrook (chairman, women, 320 WG), Hartvigsen, I. Heaton, E. R. Kimball.

Associate Professor: Watts.

Assistant Professors: Barney, F. W. Dixon, Geddes, A. Heaton, Robison, Soffe.

Instructors: R. Andrus, Bangerter, Bunker, Calderwood, Crowton, Davis, O. Dixon, W. J. Hafen, Hirst, Jacobson, M. B. Jensen, C. R. Kimball, Leake, Oswald, Russon, Stevens, Tolbert, Van Noy, Wallace, Witbeck.

Physical Education



Each student is required to complete successfully one lower division physical education activity course during each quarter of his freshman year. Transfer students must have the equivalent or take the courses before graduation. Exceptions: (1) Students who are majoring in and who complete the course in engineering science together with requirements for an air science commission are not subject to the above requirement. (2) Freshman air science students need take only two of the usual three required quarters of physical education. Withdrawal from the air science program before the completion of six credit hours imposes the full physical education requirement.

A variety of activities is available for selection. A year's work in physical education activity will provide the student with an opportunity for organic development, neuromuscular skill, social contact in game and team situations, and other carry-over values.

Extra-curricular activities are promoted for student participation: games, sports, hikes, dancing, and intramural athletics. The department urges all students to participate regularly in some form of physical activity during their four years here.

Students using the towel service are required to make a 75-cent deposit by purchasing a towel check. This check is exchangeable for towel service during school hours and is redeemable at any time.

A thorough physical examination is required of each freshman student upon entering the institution. Any student desiring exemption from physical education for medical reasons must obtain an excuse from the university physician. Written statements from the local doctor must be approved by the university physician.

Students registered for physical education activity courses are required to provide themselves with the official uniform, which may be purchased at the university book store. They also are required to provide themselves with an approved combination padlock for use on basket lockers.

SUBJECT MATTER CLASSIFICATION

Lower Division Activity Courses

Preparatory-Remedial	1 - 99
Unclassified	101 - 109
Combatives	110 - 119
Individual Sports	120 - 139
Team Sports	140 - 159
Aquatics	160 - 169
Gymnastics	170 - 179
Rhythmics	180 - 199

Professional Courses

Type of Course	Lower Division	Upper Division	Advanced Undergrad. or Graduate	Graduate Courses
ADMINISTRATION	201-219	301-319 401-419	501-519	601-619 701-719
PHILOSOPHY AND PRINCIPLES	220-239	320-339 420-439	520-539	620-639 720-739
PHYSIOLOGICAL	240-259	340-359 440-459	540-559	640-659 740-759
EVALUATION	260-269	360-369 460-469	560-569	660-669 760-769
TEACHING METHODS	270-289	370-389 470-489	570-589	670-689 770-789
SEMINAR		390-399	590-599	690-700
READINGS		490-499		790-800
THESIS				

Major Requirements

Core Program:

Required of all men and women majoring in Physical Education and also of pre-physical therapy majors—Physical Education 180, 181, 182, 330, 341, 344, 413, 446, 464, and 570.

Physical Education—Men:

In addition to the Core Program, they must take P.E. 221, 222, 223, 224, 225, 226, 227, 228, 371, 372, 373, 374, and at least two additional hours in physical education selected from 206, 207, 314, 511, 542, and 543 (substitution for any of the above courses will be allowed only upon approval of the department chairman). Additional preparation courses required are Health 121, Foods 115, Zoology 105 (or Bacteriology 121 or Botany 101) and 164, Physics 101, Chemistry 100 or 101, and Speech 121. (Note: Most of these preparation courses apply toward General Education Requirements.)

Physical Education—Women:

In addition to the Core Program, they must take P. E. 160, 183, 187, 188, 189, 207, 241, 242, 243, 244, 245, 246, 375 or 376, and 572. Additional preparation courses required are Health 121, Zoology 105 (or Bacteriology 121 or Botany 101) and 164, Speech 121. (Note: Most of these courses apply to General Education Requirements.)

Physical Education—Women (Dance Emphasis):

P. E. 160, 180, 181, 182, 183, 187, 188, 189, 241, 242, 243, 244, 245, 246, 280, 282, 283, 287, 288, 289, 330, 341, 344, 380, 383, 387, 388, 389, 413, 446, 484, 485, 487, 488, 489. Additional preparation courses required are Health 121, Zoology 105 (or Bacteriology 121 or Botany 101) and 164, Speech 121. (Note: Most of these preparation courses apply to our General Education Requirements.)

Dance Non-Teaching:

P. E. 180, 181, 182, 183, 187, 188, 189, 280, 281, 282, 283, 287, 288, 289, 380, 383, 387, 388, 389, 484, 485, 487, 488, and 489.

Pre-Physical Therapy:

In addition to the Core Program, pre-physical therapy majors will take the following: Men—Physical Education 221, 222, 223, 225, 228, 273. Women—Physical Education 243, 244, 245, and one additional 3 hour course elected from the area of skills and teaching techniques or activity courses for women. Additional preparation courses required for the pre-physical therapy major are Bacteriology 121; Zoology 105; Zoology 164; Philosophy 308, 310, 511,

512; History 366 or English 350 or Archaeology 310 or 360; Psychology 111, 590, 628; Sociology 111 or 112; Chemistry 101 or 111, 102 or 112, 103 or 113; Mathematics 101 or 111, 112; Physics 111; Physical Education 375 (543 for men), 3 hours electives for women; Speech 121; Foods and Nutrition 115; Health 121; Health 130. (Note: These courses fulfill the general education requirements.)

Minor Requirements

Physical Education—Men:

Physical Education 180 or 181, 330, 341, 413; 9 hours from the following courses: 371, 372, 373, 374; and 5 hours selected from 221, 222, 223, 224, 225, 226, 227, 228.

Physical Education—Women

Physical Education 180, 181, 182, 183, 187, 188, 189, 330, 341, 413, and any four from 241, 242, 243, 244, 245, 246.

Dance Minor

21 hours minimum, to include Physical Education 180, 181, 182, 183, 187, 188, 189, 282, 283, 284, 285, 287, 288, 289, 380, 484, 485.

The departments reserve the right to recommend a substitute for any of the above required courses.

Physical Education Specialization Designed for Elementary Majors:

Students majoring in Elementary Education who desire to elect a teaching minor in physical education will take the following courses:

38 hour list—Men: P. E. 180, 181, 182, 221, 222, 224, 225, 226, 228, 280, 281, 314, 330, 341*, 373, 375, 376, 446, 464, and Health 121.

24 hour list—Men: P. E. 180, 181, 182, 221, 225, 226, 330, 341*, 373, 375, 376, 446, and Health 121.

38 hour list—Women: P. E. 160, 180, 181, 182, 241, 242, 243, 245, 280, 281, 314, 330, 341*, 375, 376, 446, 464, and Health 121.

24 hour list—Women: P. E. 180, 181, 182, 241, 242, 243, 330, 341*, 375, 376, 446, and Health 121.

*(Note: Zoology 164 is a prerequisite for P. E. 341.)

Suggested Sequence of Courses — Men

Freshman Year

	Hours
English 111, 112, 113	9
Religion	6
Phys. Ed. 221, 222, 223, 224	4
Bact. 121 or Bot. 101	4 or 5
or Zoo. 105	4 or 5
*Chemistry 100	3-5
Sociology 111	5
History 170	5
Health 130	2
Speech 121	3
Humanities	2
Minor Subject area	3-5
Total	47-51

Sophomore Year

	Hours
English (literature)	2-6
Religion	6
Phys. Ed. 225, 226, 227, 228	4
Phys. Ed. 180, 181, 330	5
Zoology 164	5

Foods 115	3
*Physics 101	3
*Phys. Sci. (Any G.E. Course) ..	3
Psychology 111	5
Health 121	2
Humanities	3
Minor	5-7
Total	44-52

Junior Year

	Hours
English (literature)	0-4
Religion (sug. Ch. Adm. 377, 387, 388)	6
Phys. Ed. 371, 372, 373, 374	12
Phys. Ed. 341, 344, 182	7
E.R.S. 305	6
Phys. Ed. 377, 478	3-8
Health 362	3
Humanities	3
Minor	3-5
Total	48-54

Senior Year	
	Hours
Religion	6
Phys. Ed. 479	7-12
Phys. Ed. 413, 446, 464	11
Ed. Adm. 310, Ed. Phil. 415, and Inst. 450	9

Phys. Ed. 570	2
Phys. Ed. Electives	2
Minor	7-13
Total	44-53
*Physical Science 101, 102, 103 will substitute for Chemistry 100, Physics 101, and any other physical science.	

Suggested Sequence of Courses — Women

Freshman Year			
	A	W	S
Religion	2	2	2
English (composition)	3	3	3
P.E. 241, 242, 243	2	2	2
P.E. 187, 188, 189	1	1	1
Chemistry (P.S.)	3		
Social Science	5		
Health 130		2	
Physics		3	
Humanities		3	
Physical Science			3
Electives			4
Total	16	16	15

Sophomore Year			
	A	W	S
Religion	2	2	2
P.E. 244, 245, 246	2	2	2
P.E. 181, 182, 183	1	1	1
P.E. 180, 207, 160	1	1	1
Zoology 105, 164	5	5	
Psychology 111	5		
Speech		3	
Minor		2	
P.E. 376 or 375			2
Health Education 362			3
English (literature)			4
Health Education 121			2
Total	16	16	17

Junior Year			
	A	W	S
Religion	2	2	2
P.E. 330, 341, 344	3	3	3
E.R.S. 305	6		
P.E. 377, 478		4	4
History 170 or 180		5	
Humanities		3	
English (literature)			2
Minor	3		6
Electives	2		
Total	16	17	17

Senior Year			
	A	W	S
Religion	2	2	2
P.E. 413, 446, 464	3	3	5
Minor	5	5	3
P.E. 479	7		
P.E. 570, 572		2	2
Ed. Phil. 415		3	
Ed. Adm.		3	
Inst. 450			3
Electives			3
Total	17	18	18

Suggested Sequence of Courses for Pre-Physical Therapy

Freshman Year			
	A	W	S
Religion	2	2	2
English (composition)	3	3	3
Health 130, 121	2		2
Math 101 or 111, 112	5	5	
Bacteriology 121	4		
Phys. Ed. 221, 223	1	1	
Phys. Ed.		1	
Zoology 105		5	
Physics 111			5
Psychology 111			5
Total	17	17	17

Sophomore Year			
	A	W	S
Religion	2	2	

Philosophy 308, 310, 511 or 512 (religion)			3
or Chemistry 101 or 111, 102 or 112, 103 or 113	5	5	5
or Archaeology 310, 360, or History 366			
Zoology 164	5		
Speech 121		3	
History 170			5
Sociology 111 or 112	5		
Physical Education 228, 181	1	1	
Physical Education 330, 341	3	3	
Foods 115			3
Total	17	17	17

Junior Year			Phys. Ed. 464, 543 (men), 413		
	A	W	S		
Religion (incl. English 350)	3	2		Phys. Ed. 182, 373, 570	1 3 2
English (literature)		3		Psychology 590, 628	3 3
Phys. Ed. 446, 344, 375	3	3	2	Electives	2 2-3 4-5
				Total	17 16-17 14-15

Lower Division Courses

ACTIVITY COURSES

101. **Physical Education Activities — Men.** (1:0:3) A. Bangerter
Includes games and a variety of athletic and gymnastic activities.
102. **Physical Education Activities — Men.** (1:0:3) W. Bangerter
103. **Physical Education Activities — Men.** (1:0:3) S. Bangerter
104. **Recreational Sports — Women.** (1:0:3 or 5 as scheduled) A.W.S. Calderwood
Individual, dual, and small group games and sports. Selection made from activities providing opportunity for ready development of skill and recreational satisfaction.
110. **Boxing, Beginning — Men.** (1:0:3) A.W.S. O. Dixon
111. **Boxing, Intermediate — Men.** (1:0:3) A.W.S. Prerequisite: Physical Education 110 or equivalent. O. Dixon
113. **Wrestling, Beginning — Men.** (1:0:3) A.W.S. Davis
114. **Wrestling, Intermediate — Men.** (1:0:3) A.W.S. Prerequisite: Physical Education 113 or equivalent. Davis
121. **Track and Field, Indoor — Men.** (1:0:3) W. Robison
123. **Badminton.** (1:0:3) A.W.S. Soffe, Calderwood
125. **Handball — Men.** (1:0:3) A.W.S. Hafen
126. **Archery.** (1:0:3) A.S. Jacobson
Individual techniques with various types of tournaments and related archery activities. Students furnish their own arrows and bow strings.
131. **Golf, Beginning.** (1:0:4) A.S. Crowton, F.W. Dixon
Two double periods each week at the Provo Municipal Golf Course. Fee.
132. **Golf, Intermediate.** (1:0:4) A.S. Prerequisite: Physical Education 131 or equivalent. F. W. Dixon
Two double periods each week at the Provo Municipal Golf Course. Fee.
133. **Tennis, Beginning.** (1:0:3) A.S. F. W. Dixon
134. **Tennis, Intermediate.** (1:0:3) A.S. Prerequisite: Physical Education 133 or equivalent. F. W. Dixon
135. **Skiing, First Year.** (1:0:5) W. Hirst, Jensen, Leake, Watters
First year skiing for participants of varying abilities. Sections formed and instruction given in fundamentals of climbing, touring, downhill and slalom. Fee. (Permission to withdraw with refund restricted.)
136. **Skiing, Second Year.** (1:0:5) W. Hirst, Jensen, Leake, Watters
Second year skiing for participants of varying ability. Classification for instruction based upon ability. Fee. (Permission to withdraw with refund restricted.)

- 137. Outdoor Experience Through Organized Hiking — Women.** (1:0:5) A.S. Jacobson
Hikes taken in the canyons and mountains of the vicinity. Progression in difficulty is arranged. Related observations are made. Fee.
- 138. Outing Activities — Women.** (1:0:3) A.S. Holbrook
Selected seasonal activities conducted which may include such activities as snowshoeing, hiking, horseback riding, canoeing, sleighing, ice skating, tracking and trailing, and nature observation. Fee. (Permission to withdraw with refund restricted.)
- 139. Horseback Riding — Women.** (1:0:4) A.S. Holbrook
Individual and group instruction in riding with development in techniques and with instruction in "aids." Correct handling of horses and the development of gait taught. Progress graded from beginning phases of horseback riding. Fee. (Permission to withdraw with refund restricted.)
- 140. Basketball, Beginning.** (1:0:3) A.W.S. Crowton, Wallace
- 141. Basketball, Intermediate.** (1:0:3) A.W. Prerequisite: Physical Education 140 or equivalent. Crowton, Wallace
- 141. Volleyball, Beginning.** (1:0:3) A.W.S. Soffe, Wallace
- 145. Volleyball, Intermediate.** (1:0:3) A.W.S. Prerequisite: Physical Education 144 or equivalent. Soffe, Wallace
- 149. Field Sports — Women.** (1:0:3) A. Selected outdoor team sports. Wallace
- 150. Hockey — Women.** (1:0:3) A. Wallace
- 152. Softball — Women.** (1:0:3) A.S. Calderwood
- 153. Basketball, Freshmen — Men.** (1:0:5) W. Bunker
Limited to those qualifying for freshman basketball squad.
- 154. Football, Freshmen — Men.** (1:0:5) A. Staff
Limited to those qualifying for freshman football squad.
- 155. Track and Field, Freshmen — Men.** (1:0:5) S. Robison
Limited to those qualifying for freshman track and field squad.
- 156. Baseball, Freshmen — Men.** (1:0:5) S. Van Noy
Limited to those qualifying for freshman baseball squad.
- 160. Swimming, Beginning.** (1:0:3) S. Hirst
Swimming techniques for the novice to provide a foundation for skill, safety, and enjoyment of water activities. Fee. (Permission to withdraw with refund restricted.)
- 161. Swimming, Intermediate.** (1:0:3) S. Wallace
Swimming skills including strokes, diving, and synchronizing. Fee. (Permission to withdraw with refund restricted.)
- 164. Life Saving.** (1:0:3) S. Hirst, Wallace
American Red Cross life saving course. Fee. (Permission to withdraw with refund restricted.)
- 165. Water Safety Instruction.** (1:0:3) S. Prerequisite: Physical Education 164 or equivalent. Cowan
American Red Cross water safety instructor's course. Fee. (Permission to withdraw with refund restricted.)

166. **Canoeing.** (1:0:3) A.S. Prerequisite: ability to pass swimming test or the holding of an intermediate or life saving card. Hirst, Holbrook
Instruction in canoeing techniques on the many and varied waterways of Utah County. American Red Cross basic canoeing cards and canoeing instruction cards issued to qualifying students. Fee. (Permission to withdraw with refund restricted.)
170. **Tumbling, Beginning — Women.** (1:0:3) A.W.S. Wallace
Simple tumbling events in keeping with beginner's ability taught as foundation work. Other items given to develop skill and coordination for the fun and satisfaction of the performers.
171. **Trampoline and Tumbling, Beginning — Men.** (1:0:3) A.W.S. Andrus
173. **Trampoline and Gymnastics, Beginning — Men.** (1:0:3) A.W.S. Andrus
Basic instruction in gymnastic and free exercises; techniques in use of parallel and horizontal bars, flying rings, side horse, and trampoline.
174. **Trampoline and Gymnastics, Intermediate — Men.** (1:0:3) A.W.S. Pre-requisite: Physical Education 173 or equivalent. Andrus
176. **Activities for Fitness — Women.** (1:0:3) A.W.S. Wallace
177. **Principles and Methods of Body Mechanics.** (1:0:3) A.W.S. Barney
Designed to develop in the student principles of good body mechanics for daily living.
178. **Weight Training and Body Building.** (1:0:3) A.W.S. Witbeck
180. **Social Dance.** (1:0:3) A.W.S. A. Heaton
181. **Folk Dance.** (1:0:3) A.W.S. Holbrook, Jensen
182. **Square Dance.** (1:0:3) A.W.S. A. Heaton, Jensen
Square and round dances of the United States and dances of the Americas.
183. **Tap Dance.** (1:0:3) A.W.S. Oswald, Jensen
Fundamental and basic tap rhythms progressing into routines for varied tempo music.
187. **Modern Dance Technique, Beginning.** (1:0:3) A.W.S. Oswald, Russon
Progressive fundamental movement techniques, with emphasis upon rhythm, space, locomotion, and contraction and relaxation.
188. **Modern Dance Techniques, Intermediate.** (1:0:3) A.W.S. Oswald, Russon
Progressive fundamental movement techniques with emphasis upon qualities of movement and body action in initiating "leads".
189. **Modern Dance Techniques, Advanced.** (1:0:3) A.W.S. Oswald, Russon
Progressive fundamental movement techniques with emphasis upon the approaches of sensory stimuli and structural analysis.

PROFESSIONAL COURSES

206. **Officiating Football — Men.** (1:1:0) A. Soffe
Rules, techniques, problems, and procedures in officiating football.
207. **Officiating Basketball.** (1:1:0) W. Wallace, Watts
Rules, techniques, problems, and procedures in officiating basketball.
221. **Sports Fundamentals for Majors — Men.** (1:0:3) A.S. Witbeck
Speedball, touch football, and weight training.
222. **Sports Fundamentals for Majors — Men.** (1:0:3) W. Bangerter, Witbeck
Boxing and wrestling.

223. **Sports Fundamentals for Majors — Men.** (1:0:3) A.S. F.W. Dixon, Soffe
Tennis and badminton.
224. **Sports Fundamentals for Majors — Men.** (1:0:4) A.S. Witbeck
Soccer and bowling (special fee).
225. **Sports Fundamentals for Majors — Men.** (1:0:3) W. Bangerter
Gymnastics and tumbling.
226. **Sports Fundamentals for Majors — Men.** (1:0:3) W. Soffe
Volleyball, games and relays.
227. **Sports Fundamentals for Majors — Men.** (1:0:4) A.S. Crowton, Soffe
Golf, handball, and squashball.
228. **Sports Fundamentals for Majors — Men.** (1:0:3) W. Watters, Witbeck
Swimming, water safety and life saving.
241. **Skills and Teaching Techniques — Women.** (2:0:4) A. Wallace
Soccer, speedball, volleyball and trampoline.
242. **Skills and Teaching Techniques — Women.** (2:0:4) W. Wallace
Marching and tumbling.
243. **Skills and Teaching Techniques — Women.** (2:0:4) S. Wallace
Outdoor games, track and field, softball, and body mechanics.
244. **Skills and Teaching Techniques — Women.** (2:0:4) A. Hirst
Hockey, badminton, practice and tests in activities calling for coordination, balance, flexibility, agility, and timing.
245. **Skills and Teaching Techniques — Women.** (2:0:4) W. Hirst
Basketball, rope jumping and recreational sports.
246. **Skills and Teaching Techniques — Women.** (2:0:4) S. Hirst
Archery, golf, and bowling.
250. **Methods for Ski Instruction.** (1:0:3) A. Prerequisite: Physical Education 135 and 136 or equivalent. Hirst
Instructors' course in skiing for men and women wishing to qualify as student instructors.
280. **Techniques of Teaching Social Dance.** (1:0:3) S. Prerequisite: Physical Education 180. Heaton
281. **Techniques of Calling Square Dance.** (2:0:3) A. Jensen
Analysis of dance forms, their presentation for ready learning, and study and laboratory experience in square dance calling.
282. **Specialty Dance.** (1:0:3) A.W.S. Prerequisite: Physical Education 187, 188, 189 or equivalent. Russon
283. **Percussion Accompaniment, Beginning.** (1:0:3) A. Oswald
Percussion accompaniment based upon rhythm, form and analysis.
284. **Percussion Accompaniment, Intermediate.** (1:0:3) W. Oswald
Percussion accompaniment supportive of dance technique.
285. **Percussion Accompaniment, Advanced.** (1:0:3) S. Oswald
Percussion accompaniment in choreography for interpretation and expression.
287. **Dance Composition, Beginning.** (1:0:3) A. Prerequisite: Physical Education 187, 188, 189 or equivalent. Russon
Compositional considerations with emphasis given to fundamental locomotor movement.

288. **Dance Composition, Intermediate.** (1:0:3) W. Prerequisite: One year of dance technique. Russon
Compositional considerations with emphasis given to space usage, interpretations, and relationships.
289. **Dance Composition, Advanced.** (1:0:3) S. Prerequisite: One year of dance technique. Russon
Compositional considerations with emphasis given to the quality and the expression in movement.

Upper Division Courses

PROFESSIONAL COURSES

314. **Administration of Intramural Sports.** (2:2:0) S. Home Study also. Hafen
Procedures concerning organization, administration, and supervision of the intramural program.
330. **Principles of Physical Education.** (3:3:0) A.S. Hart, Holbrook
Philosophy and principles underlying physical education for a general comprehension and unified view.
341. **General Kinesiology.** (3:3:0) A.W. Prerequisite: Zoology 164. Barney, F. Dixon
Anatomy of the human body with emphasis upon study of bones, joints, muscles, and their action. Athletic exercise and its effect upon the body.
344. **Physiology of Activity.** (3:3:0) A.S. Prerequisite: Zoology 164. Barney
Processes which occur in the body during exercise. Special attention given to the effects of exercise upon circulation, respiration, and metabolism.
371. **Football Fundamentals and Coaching.** (3:2:2) A.S. Stevens
Fundamentals of the game, methods of working out plays, systems of offense and defense, conditioning of teams, etc.
372. **Basketball Fundamentals and Coaching.** (3:2:2) A.W. Watts
Fundamentals of offensive and defensive systems, schedule making, etc.
373. **Track and Field Fundamentals and Coaching.** (3:2:3) W.S. Robison
Techniques of track and field athletics with emphasis upon management of meets.
374. **Baseball Fundamentals and Coaching.** (3:2:3) A.S. Van Noy
Problems and duties of the baseball coach, including individual techniques and team tactics, rules and training.
375. **Physical Education for Teachers of Primary Grades.** (2:1:3) A.W.S. Jacobson
Analysis of fundamentals and development of skills teaching in game and rhythm activities for grades 1, 2, and 3.
376. **Physical Education for Teachers of Intermediate Grades.** (2:1:3) A.W.S. Hirst
Analysis of fundamentals and development of skills for teaching in game and rhythm activity for grades 4, 5, and 6.
380. **Dance Production.** (2:2:2) A. Russon
Research in problems for dance concerts. Suggestions for costumes, choreography, and accompaniment.
381. **Piano Improvisation for Dance, Beginning.** (1:0:3) A. Prerequisite: Fundamental skill at the keyboard or Physical Education 381, 382, 383. Russon
382. **Piano Improvisation for Dance, Intermediate.** (1:0:3) W. Russon

383. **Rhythmic Analysis and Movement.** (3:3:0) A. Russon
The development of sensitivity and response through an analysis of rhythm and its application to movement.
384. **Problems in Teaching Dance.** (1:0:3) A. Staff
385. **Problems in Teaching Dance.** (1:0:3) W. Staff
386. **Problems in Teaching Dance.** (1:0:3) S. Staff
387. **Modern Dance, Advanced Technique.** (1:0:3) A. Russon
388. **Modern Dance, Advanced Technique.** (1:0:3) W. Russon
389. **Modern Dance, Advanced Technique.** (1:0:3) S. Russon
413. **Administration of Physical Education.** (3:3:0) A.S. Home Study also. Pre-requisite: Physical Education 330. Hartvigsen
Executive and administrative problems arising out of organizing and conducting health, physical education and recreation programs in schools and communities
446. **Adaptation of Activities in Corrective Procedure.** (3:2:3) W.S. Prerequisites: Zoology 164; Physical Education 341. Barney
Variations of posture, mechanics of balancing of forces in the body, psychology of individual gymnastics, methods of stimulating interest in posture, and selection and scope of corrective activities.
464. **Introduction to Statistics and Tests in Physical Education.** (5:5:0) W.S. Hart
Background course in physical achievement tests. History of the development, together with analysis of outstanding tests in physical education and statistical procedures used in analyzing tests.
484. **Philosophy and Principles of Dance.** (2:3:1) A. Russon
485. **History of Dance.** (3:3:1) S. Russon
487. **Concert Dance.** (1:0:3) A. Russon
Performance techniques and composition for modern dance.
488. **Concert Dance.** (1:0:3) W. Russon
489. **Concert Dance.** (1:0:3) S. Russon

Advanced Undergraduate or Graduate Courses

511. **Administration of High School Athletics.** (3:3:0) A. E. R. Kimball
Educational outcomes of high school athletics—their relationship to the intramural program, the physical education program, and the school and the community as a whole.
542. **Physical Inspection.** (2:2:0) S. Staff
Ways of recognizing abnormalities of body function by inspection and testing procedures.
543. **Problems in Athletic Conditioning and Injuries.** (3:2:3) A.W. Barney Fee.
570. **Teaching Progression in Individual Sports.** (2:2:0) S. Hirst, Soffe
Materials, methods and teaching progression in individual sports such as archery, badminton, bowling, golf and tennis.
571. **Teaching Progression in Team Sports — Men.** (2:2:0) A. Soffe
Materials, methods and teaching progression in team sports such as basketball, football, soccer, softball, speedball, and volleyball.

- 572. Teaching Progression in Team Sports — Women.** (2:2:0) S. Hirst
Materials, methods and teaching progression in team sports such as basketball, field hockey, soccer, softball, speedball, and volleyball.
- 584. Summer Workshop in Modern Dance.** (2:6:10) Su. Holbrook
- 586. Workshop in Modern Dance.** (2:5:5) Not given this year.
Holbrook, Glover, Leake
Advanced techniques.
- 587. Workshop in Modern Dance.** (3:5:5) Not given this year.
Holbrook, Glover, Leake
Composition, improvisation, and accompaniment.

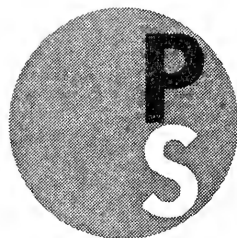
EDUCATION COURSES

- 377. Secondary Teaching Procedures.** (3-4:4:0-3) Hirst
For course description and fees see Instruction 377.
- 478. Unit Planning and Teaching.** (4:3:5) A.W. Holbrook
For course description and fees see Instruction 478.
- 479. Secondary Student Teaching.** (7-12:1:20-30) A.W.S. Bangerter,
Hirst, Holbrook, Soffe
For course description and fees see Instruction 479.

Graduate Courses

- 601. Supervision in Physical Education.** (3:3:0) A. Staff
Techniques of supervision with regard to their application in improving teacher-pupil learning situation in physical education. Problems met by supervisors in elementary and secondary schools with class participation in solving them.
- 602. Seminar in Administration.** (3:3:0) W. Hartvigsen
- 603. Planning and Administration of Facilities.** (3:3:0) W. E. R. Kimball
Basic problems in planning indoor and outdoor facilities for school and community physical education, health, recreation, and athletics.
- 604. Intramural Organization and Management.** (3:3:0) S. Staff
History, present status, and objectives of the intramural movement; guiding principles related to patterns of organization, units of competition, scheduling, program of activities, record keeping, awards facilities, financing, securing officials, and special administrative problems.
- 605. Personal and Public Relations in Physical Education, Health and Recreation.** (3:3:0) W. Hartvigsen
Personal and public relations as they relate to physical education, health and recreation. Tools and techniques for determining public reaction and methods of securing good personal and public relations.
- 621. History and Philosophy.** (3:3:0) S. Holbrook
Beliefs and practices from early and modern times. Significance and implications of these events in view of their effect upon modern educational and cultural uses.
- 641. Principles and Practices of Physical Reconditioning.** (3:3:0) A. Prerequisite: Zoology 164. Barney
- 660. Administration of Tests in Physical and Health Education.** (3:3:0) S. Pre-requisite: Physical Education 464 or equivalent. Hart
- 673. Physical Education in the Elementary School.** (3:3:0) W. Holbrook
For the teacher, the principal, and the supervisor. Emphasis upon objectives, interrelationships with the curriculum, and content and material used in accomplishing educational results.

674. **Material and Methods for Secondary Teachers — Men.** (3:3:0) A. Bangerter
 Designed to give the experienced teacher materials and techniques of teaching various physical education activities. The student develops a syllabus outlining progressive steps in teaching core material in such activities as trampoline, tumbling, gymnastics, apparatus and certain selected sports.
675. **Materials and Methods for Secondary Teachers — Women.** (3:2:2) W. Hirst
 Core physical education material in marching, gymnastics and tumbling, trampoline, and related activities leading toward the physical education demonstration.
676. **Curriculum Construction.** (3:3:0) W. Hart
684. **Teaching Progressions in Modern Dance, Advanced.** (2:1:2) W. Staff
 Overview on integration of techniques, compositional principles, and ideas employed in developing modern dance in the secondary school curriculum.
692. **Research Methods in Physical Education.** (5:5:0) A. Hart
694. **Seminar in Readings.** (2:2:0) A.W.S. Staff
696. **Seminar in Problems.** (1:1:0) W. Staff
698. **Field Project, Master's Degree.** (2-6:2-6:0) A.W.S. Staff
699. **Thesis, Master's Degree.** (2-6:2-6:0) A.W.S. Staff



Lower Division Course

- 101, 102, 103. Concepts of Physical Science.** (3:3:0 ea.) (G-PS) A. Hill
This course starts Autumn Quarter and continues through the year. All three courses must be taken to receive credit which will meet the requirements for general education in the physical sciences. Emphasis is devoted to a penetrating application of the methods of science to a relatively few basic topics rather than to a superficial survey of many.

PHYSICAL SCIENCE EDUCATION

Upper Division Courses

- 377. Secondary Teaching Procedures.** (3-4:3:0-3) A.S. Prerequisite: E.R.S. 305. Compton
For course description and fees see Instruction 377.
- 478. Unit Planning and Teaching.** (4:3:5) W. Prerequisite: Physical Science Education 377. Compton
For course description and fees see Instruction 478.
- 479. Secondary Student Teaching.** (7-12:1:20-40) A.S. Prerequisite: Physical Science Education 478. Compton
For course description and fees see Instruction 479.

Advanced Undergraduate or Graduate Courses

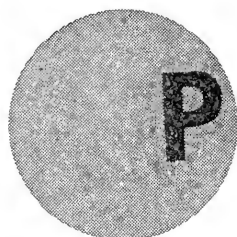
- 501. Science for Teachers.** (5:4:4) Su., 8 weeks. Staff
- 511. Science Workshop for Teachers.** (3:6:0) Su., 8 weeks. Staff

These courses also count in Physical Science:

Instruction 493, 494. Independent Reading. (1-3:1-3:0)

Instruction 670. Teaching Mathematics and Science in Secondary Schools. (3:3:0)

Physics



Professors: E. J. Eastmond (chairman, 288 ESC), H. Fletcher, J. H. Gardner, W. B. Hales, A. J. Hill, Marshall.

Associate Professors: R. W. Hales, McNamara.

Assistant Professors: J. D. Barnett, Decker, Dudley, Geertsen, M. Hill, Hoyt, Miller.

Students who expect to study engineering or physical sciences should begin their study of physics by electing Physics 211, 212, and 213. Students who expect to study medicine or to major in the fields of biological science should begin their study of physics by electing Physics 111, 112, and 113.

Non-science students may elect with profit Physics 101, 102, 103, 104, 105, 127, 128, 137, and 177, which may be taken without prerequisite and which are organized with the view of giving the student an appreciation of his physical environment.

Physics is one of the subjects comprising the composite major in mathematics and the physical sciences designed for prospective teachers.

Requirements for Physics Major

For entrance requirements of the College of Physical and Engineering Sciences see that section of this catalog. Students majoring in physics have the following courses prescribed: Physics 211, 212, 213, 321, 322, 323, 491, 492, 493 and twenty-four more hours of additional courses selected from the 300, 400, or 500 series in the department.

Suggested Courses for Physics Major

In order to satisfy the general education requirements and at the same time obtain sufficient work in undergraduate physics to make the pursuit of graduate work profitable, the physics major must plan his program carefully.

For the physics majors who have completed $1\frac{1}{2}$ units of algebra and $\frac{1}{2}$ unit of plane trigonometry in high school the following program is recommended:

Freshman Year				Sophomore Year			
	A	W	S		A	W	S
Math 231, 232, 233	5	5	5	Math 234, 316, 317	5	3	3
Chemistry 111, 112, 113	5	5	5	Physics 211, 212, 213	5	5	5
English 111, 112, 113	3	3	3	Religion	2	2	2
Religion	2	2	2	Language or general			
Physical Education	1	1	1	electives	5	8	8
Health 130	2						
General electives		3	3	Total hours	17	18	18
Total hours	18	19	19				

During the junior and senior years, courses should include those listed below, together with physics electives chosen from the following: Physics 331, 332, 333, 351, 352, 353, 371, 372, 373.

Junior Year			
	A	W	S
Physics 321, 322, 323	4	4	4
Physics 341, 342, 343	5	5	5
Physics elective	3	3	3
Religion	2	2	2
General elective	5	5	5
Total hours	19	19	19

Senior Year			
	A	W	S
Math 541, 542, 543	3	3	3
Physics 441, 442, 443	3	3	3
Physics electives	5	5	5
Religion	2	2	2
Physics 491, 492, 493	1	1	1
General elective	3	3	3
Total hours	17	17	17

For the physics majors who enter the university without the mathematics courses required for the above program, the following is recommended.

Freshman Year			
	A	W	S
Math 111, 112, 231	5	5	5
Chemistry 111, 112, 113	5	5	5
English 111, 112, 113	3	3	3
Religion	2	2	2
Physical Education	1	1	1
Health 130	2		
General electives		3	3
Total hours	18	19	19

Sophomore Year			
	A	W	S
Math 232, 233, 234	5	5	5
Physics 211, 212, 213	5	5	5
Religion	2	2	2
Language or general electives	5	5	5
Total hours	17	17	17

During the junior and senior years, courses should include those listed below, together with physics electives chosen from the following: Physics 331, 332, 333, 351, 352, 353, 371, 372, 373.

Junior Year			
	A	W	S
Math 316, 317		3	3
Physics 321, 322, 323	4	4	4
Physics 341, 342, 343	5	5	5
Religion	2	2	2
General electives	8	3	3
Total hours	19	17	17

Senior Year			
	A	W	S
Physics 441, 442, 443	3	3	3
Physics electives	6	6	6
Religion	2	2	2
Physics 491, 492, 493	1	1	1
General electives	5	5	5
Total hours	17	17	17

Lower Division Courses

Only one of the courses 101, 102, 103, 104, 105 may be taken for credit.

101. **Essentials of Physics.** (3:3:0) A.W.S. Home Study also. (G-PS) Staff
Introductory description of common experiences with physical phenomena with emphasis on energy in its various forms and manifestations.
102. **Fundamentals of Physics.** (3:3:0) W. (G-PS) Staff
Introductory treatment of basic concepts of physical phenomena, with applications in nursing techniques.
103. **Fundamentals of Physics.** (3:3:0) A. (G-PS) Staff
Introductory treatment of basic concepts of physical phenomena, with application in music, speech and hearing, color, and image production.
104. **Fundamentals of Physics.** (3:3:0) S. Home Study also. (G-PS) Staff
Introductory treatment of basic concepts of physical phenomena, with household applications.

- 105, 106, 107. Technical Physics.** (3:2:3) A.W.S. Barnett
Introductory course in applied physics with special emphasis placed upon industrial and technical applications. Limited to study of mechanics of heat, light, and sound. Includes a three hour laboratory period per week.
- 111. General Physics, Mechanics and Sound.** (5:5:3) A. (†G-PS) Prerequisites: Mathematics 111, 112, or equivalent. Staff
A general course to satisfy the physics requirement of pre-medical and pre-dental students and students in the biological sciences.
- 112. Heat and Light.** (5:5:3) W. (†G-PS) Staff
Continuation of Physics 111.
- 113. Electricity.** (5:5:3) S. (†G-PS) Staff
Continuation of Physics 112.
- 127. Descriptive Astromony—"The Solar System."** (3:3:1) A.W.S. Home Study Staff
also. (G-PS)
A non-mathematical presentation of our knowledge of the solar system. Frequent use is made of the observatory and the planetarium.
- 128. Descriptive Astromony—"The Stellar System."** (3:3:1) A.W.S. (G-PS) Staff
A non-mathematical presentation of our knowledge of the content and history of the universe. Physics 127 is not a prerequisite.
- 137. Weather and Climate.** (4:3:2) W. Home Study also. (G-PS) W. Hales
Study of the earth's atmosphere and problems associated with climate and weather forecasting.
- 177. Physics of Light and Photography.** (4:3:3) A.S. Home Study also. (G-PS) W. Hales
Study of fundamentals of light phenomena with applications to photography.
- 211. General Physics, Mechanics and Sound.** (5:5:3) (†G-PS) Prerequisites: Math 231 or consent of Physics Department chairman; Math 232 concurrently. Staff
A general course to satisfy requirements in physics for physical science and engineering majors. It is a prerequisite for all the specialized courses in physics.
- 212. Heat and Light.** (5:5:3) W. (†G-PS) Staff
Continuation of Physics 211.
- 213. Electricity.** (5:5:3) S. (†G-PS) Staff
Continuation of Physics 212.

Upper Division Courses

Prerequisites for all upper division courses in physics are calculus and Physics 211, 212, and 213.

- 301. History of Physics.** (3:3:0) Arr. Prerequisite: consent of the instructor. Staff
(Physics 111, 112, 113 may be used to satisfy the standard upper division prerequisites.)
Historical background of physical science, emphasizing the development and significance of important concepts, methods, and theories.
- 304. Physics of the Atomic Age: Classical.** (5:5:0) Arr. Prerequisites: High school geometry and algebra. An introductory course in physics would be helpful, although some may have the maturity to profit without previous experience with physics. Staff
Physical concepts necessary to an understanding of atomic and nuclear physics. Primarily for secondary teachers and non-specialists.

- 321, 322, 323. Mechanics.** (4:4:0 ea.) A.W.S. Dudley
Fundamental principles of mechanics and their application to physical problems.
- 331. Heat.** (3:3:2) A. Dudley
Study of temperature, heat transfer, and thermal properties of matter.
- 332. Thermodynamics.** (3:3:0) W. Dudley
Study of laws of thermodynamics and their applications to numerous physical and chemical phenomena.
- 333. Kinetic Theory.** (3:3:0) S. Dudley
Study of molecular motions and the transfer of mass, momentum, and energy in gases, liquids, and solids.
- 337. Physical Meteorology.** (3:3:2) A. Not given this year. W. Hales
Study of physical elements of the earth's atmosphere and their influence upon weather and climate.
- 338. Dynamic Meteorology.** (3:3:2) W. Not given this year. W. Hales
Continuation of Physics 337, with special emphasis on thermodynamics and hydrodynamics of the atmosphere.
- 339. Synoptic Meteorology.** (3:2:2) S. Not given this year. W. Hales
Continuation of Physics 338, with emphasis on weather analysis and weather forecasting by means of synoptic charts.
- 341, 342, 343. Electricity and Magnetism.** (5:5:4) A.W.S. Marshall
Electrostatics and DC and AC circuit theory; introduction to electronics.
- 351, 352, 353. Atomic and Nuclear Physics.** (3:3:3 ea.) A.W.S. Miller
Study of the structure of the atom as revealed by X-rays, radioactivity, spectroscopy, nuclear theory, and related subjects.
- 371, 372, 373. Experimental Optics.** (2:2:2 ea.) A.W.S. Eastmond
Fundamental principles of geometrical and physical optics with emphasis on experiments with prisms and lenses, dispersion and spectra, interference, diffraction, and polarization.
- 377, 378, 379. Advanced Photography.** (2:2:2 ea.) A.W.S. Not given this year. W. Hales
Prerequisites: Physics 177, 211, 212, 213, and general chemistry.
- 394. Laboratory Arts.** (2:2:0) A. Staff
Process connected with construction and use of apparatus in the physical laboratory.
- 441, 442, 443. Electronics for Physicists.** (3:3:2 ea.) A.W.S. Prerequisite: Physics 341, 342, 343 or equivalent. Barnett
A basic course in electronic devices and circuits. Includes fundamental concepts and basic circuitry but emphasizes the tools needed for specialized research in a variety of the fields of physics.
- 491, 492, 493. Seminar.** (1:1:0 ea.) A.W.S. Staff
Survey of physical theories and topics in modern research. A course for seniors in which students are aided in integrating the specialized courses.
- 494. Advanced Physical Measurements.** (1-3:0:2-6) A.W.S. Staff
Precision measurements involving special laboratory techniques and solution of some research problems.
- 495. Readings in Modern Physics.** (1-3:1-3:0) A.W.S. Staff
Reading course designed to acquaint the student with new material which may not have been included in the regular courses.

Advanced Undergraduate or Graduate Courses

505. **Physics of the Atomic Age: Atomic and Nuclear.** (5:5:0) Arr. Prerequisite: 304 or equivalent. Staff
Intended primarily for prospective teachers and non-specialists.
- 511, 512, 513. **Introduction to Theoretical Physics.** (3:3:0 ea.) Su. Prerequisite: Math 317. Hoyt
This course is recommended primarily for students other than Ph.D. candidates.
- 527, 528, 529. **Introduction to Astrophysics.** (3:3:0 ea.) A.W.S. McNamara
- 551, 552, 553. **Introduction to Quantum Theory.** (3:3:0 ea.) A.W.S. Prerequisites: Math 317, Physics 323. Decker
- 561, 562, 563. **Fundamentals of Acoustics.** (3:3:0 ea.) A.W.S. Fletcher
- 564, 565, 566. **Acoustical Measurements.** (2:0:2 ea.) A.W.S. Prerequisite or concurrent registration: Physics 561, 562, 563. Fletcher

Graduate Courses

621. **Advanced Mechanics.** (3:3:0) A.W. Prerequisite: Physics 323. Hoyt
622. **Dynamics.** (3:3:0) W. Gardner
623. **Theory of Relativity.** (3:3:0) S. Prerequisite: Physics 622. Hoyt
- 627, 628, 629. **Advanced Topics in Astrophysics.** (3:3:0 ea.) A.W.S. Not given this year. Prerequisite: Consent of instructor. McNamara
Selected topics, such as stellar interiors, etc.
- 631, 632, 633. **Kinetic Theory and Statistical Mechanics.** (3:3:0 ea.) A.W.S. Not given this year. Gardner
- 641, 642, 643. **Mathematical Theory of Electricity and Magnetism.** (3:3:0 ea.) A.W.S. Prerequisite: Physics 343. Hoyt
- 651, 652, 653. **Nuclear Physics.** (3:3:0 ea.) A.W.S. Prerequisites: Physics 353 and 553. Gardner, Hales
- 657, 658, 659. **Quantum Mechanics.** (3:3:0 ea.) A.W.S. Prerequisites: Physics 553, 622, and Math 619. Gardner, Hales
- 671, 672, 673. **Atomic Physics and Spectroscopy.** (3:3:2 ea.) A.W.S. Prerequisite: Physics 373. Eastmond
- 681, 682, 683. **Modern Theory of the Solid State.** (3:3:0 ea.) A.W.S. Not given this year. Prerequisites: Physics 333 and 553. Decker
- 691, 692, 693. **Seminar.** (1:1:0) A.W.S. Staff
695. **Readings in Modern Physics.** (1-3:0:0) A.W.S. Staff
- 696, 697, 698. **Classical Experiments.** (2:0:2 ea.) A.W.S. Staff
699. **Thesis for Master's Degree.** (Arr.) Arr.
- 741, 472, 473. **Advanced Topics in Electron Physics.** (2:2:0 ea.) A.W.S. Prerequisites: Physics 553, 622, 632, and 643. Staff
Course content varies from year to year. Examples of topics that might be treated are vacuum electronics, plasma physics, thermonuclear processes, etc.
- 757, 758, 759. **Advanced Quantum Theory.** (3:3:0 ea.) A.W.S. Not given this year. Prerequisite: Physics 659. Staff
- 771, 772, 773. **Molecular Physics and Microwave Spectroscopy.** (3:3:0 ea.) A.W.S. Not given this year. Barnett
- 791, 792, 793. **Seminar.** (1:1:0) A.W.S. Staff

- | | |
|--|--------------|
| 798. Research for Ph.D. Degree. (Arr.) Arr. | Staff |
| 799. Dissertation for Ph.D. Degree. (Arr.) Arr. | Staff |

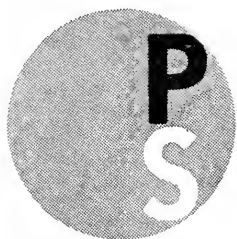
These courses also count in Physics:

Electrical Engineering 581, 582, 583. Psycho-Acoustics. (3:3:0 ea.)

Electrical Engineering 584, 585, 586. Advanced Musical Acoustics. (2:2:0 ea.)

Electrical Engineering 587. Architectural Acoustics. (5:5:0)

Political Science



Professors: Grow (chairman, 358 McKay),
Jensen (emeritus).

**Associate
Professors:** Caldwell, Reeder.

**Assistant
Professors:** Jones*, Mabey, Melville, Riggs.

Requirements for a Major in Political Science

A major in political science requires the satisfactory completion of at least 45 hours of work in this field, distributed as follows:

Required courses: Political Science 110, 111, 112 or 115, 301, 490.

Elective courses: Twenty-five hours, including at least one course from each of the following six main areas of work.

1. Political Theory
301, 303, 306, 590, 601, 605
2. Politics
310, 320, 322, 515, 610
3. Public Administration
330, 335, 345, 532, 540, 593, 630, 635
4. Comparative Government
350, 355, 362, 556, 557, 560, 650, 651
5. International Law and Relations
362, 370, 375, 376, 562, 565, 571, 580, 581, 582, 583, 665-675
6. Public Law
391, 396, 397, 590, 593, 595, 690-696

It is recommended that the major in political science include History 120 and 121 in his basic program.

Political Science 110, 111, and 112 or 115 should be completed by the end of the sophomore year. Courses and sequences other than those required should be selected in consultation with the department chairman, who will also advise the student in the selection of his minor field.

A comprehensive examination is given to all majors in the second quarter of the senior year.

Political science is designated as a "composite major" in social science. (See College of Education.)

American History and Government Requirement

In satisfying this requirement for graduation, the major student in political science is advised to take both History 120 and 121. As a minimum he should take one of the following combinations:

- Political Science 110 and History 120.
- Political Science 110 and History 121.
- Political Science 110 and History 274.

History 170 and History 180 are not recommended for majors in political science as the means of fulfilling this graduation requirement.

Lower Division Courses

- 105. Current Affairs.** (2:2:0) A.W.S. (G-SS) Staff
Survey of current events with special attention to historical background and present implications in economics, sociology, politics, and international relations.
- 110. American Government.** (5:5:0) A.W.S. Home Study also. (G-SS) Staff
Origin and growth of federal constitution; constitutional rights of citizens; study of executive, legislative, and judicial departments.
- 111. State and Local Governments.** (5:5:0) A.S. (G-SS) Staff
Relation of states to the national government; functions and powers of states; the types of municipal government and their growth and operation.
- 112. Foreign Governments.** (5:5:0) A.W. Home Study also. (G-SS) Staff
General study of selected European, Asiatic, and Latin-American governments; their development, organization, administration, and politics.
- 115. Introduction to International Relations.** (5:5:0) W.S. Home Study also. (G-SS) Staff
Survey of basic forces, practices, and institutions with special attention to foreign policies of major powers and problem areas in international politics.

Upper Division Courses

- 300. Bibliography and Research in Political Science.** (3:3:0) A.W. Caldwell
Sources, materials, and methods of research in political science; government documents; national, state, international organization. Required of all majors in political science.
- 301. The Development of Political Thought.** (5:5:0) A. Caldwell
History of political thought. Socrates, Plato, Aristotle, Epicureans, Cynics, Stoics, Cicero. Early and medieval Christian thinkers: Machiavelli, Hobbes, and others, to Locke.
- 303. Modern Western Political Thought.** (5:5:0) W. Caldwell
Modern and contemporary political thought, including development and criticism of liberal, socialist, communist, fascist, and conservative doctrines.
- 306. American Political Thought.** (3:3:0) S. Jensen
American political ideas from the colonial period to the present, with an analysis of their influence upon development of American history and government.
- 310. Political Parties in the U.S.** (3:3:0) A. Grow
Organization and methods of action of political systems in the United States.
- 320. American Legislative System.** (3:3:0) S. Grow
Structure and organization of congressional, state, and city legislative bodies, nature of business transacted; influences acting upon such bodies, parliamentary procedure.
- 322. Contemporary Problems.** (3:3:0) A. Staff
Selected topics which involve the formulation of American public policy in the areas of economics, sociology, politics, and international relations.
- 330. Introduction to Public Administration.** (5:5:0) A.W. Grow
Organization and operation of government. Relationship of administration to other branches of government; types of control over administration; central and local government.
- 335. Municipal Government and Administration.** (3:3:0) W. Grow
Growth, development, and organization of cities; relationship of cities to other governments; problems and activities of modern cities.

345. **Government and Business.** (3:3:0) Not offered this year. Staff
General survey of governmental activities affecting business. Political, economic and legal bases for government regulation and limits and difficulties in applying such regulation.
350. **Government of the Soviet Union.** (3:3:0) A. Mabey
Political heritage of Russia under the Czars; development of the U.S.S.R. and its political institutions, with reference to Marxist, Leninist, and Stalinist political ideology.
355. **English Government and Politics.** (3:3:0) S. Mabey
Development of the English Constitution; examination of growth of cabinet government; the Crown, Parliament, Civil Service; local and government administration; English judicial system.
362. **Government and Politics of East Asia.** (3:3:0) S. Hyer
Analysis of traditional Asian governmental institutions in their historical context with emphasis of the structure and dynamics of modern Far Eastern politics.
370. **International Relations.** (5:5:0) W. Riggs
International relations in the contemporary world. Development of the modern state system, problems of international relations, and emergence of international law and government.
375. **International Law I.** (3:3:0) W. Reeder
Nature and function of international law; recognition, succession, jurisdiction, rights, and immunities of states; nationality and jurisdiction over nationals.
376. **International Law II.** (3:3:0) S. Reeder
Jurisdiction over aliens; international responsibilities; status, and immunities of diplomatic officials; treaties; legal regulation of the use of force.
391. **Introduction to Anglo-American Legal Institutions.** (4:4:0) S. Caldwell
Origins and development of common law and equity, the writ system, court systems, basic legal terms, the anatomy of a law suit.
396. **Constitutional Law of the U.S. I.** (5:5:0) A. Prerequisite: Political Science 110. Reeder
American Federal System.
397. **Constitutional Law of the U.S. II.** (5:5:0) W. Reeder
Fundamental rights and immunities.
490. **Senior Seminar.** (2:0:2) Staff
Research seminar required of all majors in political science. This course should follow Political Science 300.
498. **Directed Readings in Political Science.** (1 or 2:0:1 or 2) A.W.S. Staff

Advanced Undergraduate or Graduate Courses

515. **Public Opinion and Propaganda.** (3:3:0) W. Grow
Trends of public opinion and techniques which have been instrumental in shaping and ascertaining it. Propaganda techniques and analysis.
532. **Personnel Administration.** (3:3:0) A. Staff
Treatment of processes, procedures, controls, and problems of personnel administration in executive branches of federal, state and local governments.
540. **Administration of American Foreign Policy.** (3:3:0) S. Grow
Organizations administering foreign policy. Emphasis on structure and function of the State Department and foreign service; the role of Congress in foreign relations.

- 556. Governments of the British Commonwealth.** (3:3:0) Not offered this year.
Staff
Development of colonial and dominion status; governments of Canada, Australia, New Zealand, South Africa, with some attention to recent developments in the Far Eastern Dominions.
- 557. Government and History of Canada.** (3:3:0) W. (1959-60 and alternate years.)
Staff
- 560. Governments of Latin-America.** (3:3:0) S. (1960-61 and alternate years.)
Staff
Growth and political development of countries in the Latin-American area, with special reference to Argentina, Brazil, and Mexico.
- 565. International Organization.** (3:3:0) A. Riggs
History and structure of international organizations, with particular emphasis on the United Nations organization and its specialized agencies.
- 571. Development of American Foreign Policy.** (5:5:0) S. Staff
Role of the United States in international affairs from colonial times to the present.
- 580. Foundations of National Power (The Americas).** (3:3:0) A. Staff
Analysis of the Western hemisphere in terms of geography, natural resources, relations among American nations, demography, and inter-continental relations.
- 581. Foundations of National Power (Europe).** (3:3:0) W. Staff
Analysis of the European continent in terms of geography, natural resources, relations among European nations, and demography; inter-continental relations.
- 582. Foundations of National Power (Near and Middle East).** (5:5:0) S. (1960-61 and alternate years.) Staff
Analysis of the Near and Middle East from the perspective of geography, natural resources, population, politics, international relations.
- 583. Foundations of National Power (Far East and Pacific).** (3:3:0) A. (1960-61 and alternate years.) Staff
Analysis of the Far East and Pacific Basin from the perspective of geography, natural resources, population, politics and international relations.
- 590. Jurisprudence.** (4:4:0) S. (1960-61 and alternate years.) Caldwell
Problem approach to ancient and modern legal philosophies, with special attention given the nature of justice and the relation of law and morality.
- 593. Administrative Law of the U.S.** (5:5:0) S. (1959-60 and alternate years.)
Reeder
Legal setting for administrative bodies and judicial control of administrative action. Cases in administrative law read and discussed.
- 595. American Constitutional Development.** (3:3:0) W. Prerequisite: Political Science 110. Jensen
History and development of the Constitution; study of its fundamental provisions, their interpretation and application in the functioning of the American system of government.

Graduate Courses

- 601. Modern Political Philosophy.** (3:3:0) S. (1960-61 and alternate years.)
Caldwell
- 605. Roots of American Democracy.** (3:3:0) W. (1959-60 and alternate years.)
Caldwell
- 610. American Political Problems.** (3:3:0) A. (1959-60 and alternate years.)
Grow

630. **Comparative Public Administration.** (3:3:0) S. (1960-61 and alternate years.) Grow
635. **State and Municipal Administration.** (3:3:0) W. (1959-60 and alternate years.) Staff
650. **Democratic Governments.** (3:3:0) W. (1959-60 and alternate years.) Riggs
651. **Totalitarian Governments.** (3:3:0) S. (1959-60 and alternate years.) Mabey
665. **International Organization in the 20th Century.** (3:3:0) S. (1960-61 and alternate years.) Riggs
670. **International Relations in the 20th Century.** (3:3:0) W. (1959-60 and alternate years.) Riggs
675. **Modern International Law.** (3:3:0) S. (1960-61 and alternate years.) Reeder
690. **Supreme Court of the United States.** (3:3:0) A. (1959-60 and alternate years.) Caldwell
696. **Constitutional Law in the 20th Century.** (3:3:0) A. (1959-60 and alternate years.) Reeder
698. **Directed Readings in Political Science.** (1-2:0:1-2) A.W.S. Staff
699. **Thesis for Master's Degree.** (4-6:0:4-6) A.W.S. Staff
- These courses also count in Political Science:
- Economics 575. **Government Finance.** (5:5:0)
- Economics 576. **Government and Business.** (5:5:0)
- History 686. **Constitutional History of the U.S.** (3:3:0)
- Geography 584. **Political Geography.** (3:3:0)

Portuguese

(See courses in Languages.)

Poultry Husbandry

(See courses in Animal Husbandry.)

Pre-Dental

(See College of Biological and Agricultural Sciences.)

Pre-Legal

(See College of Humanities and Social Sciences.)

Pre-Medical

(See College of Biological and Agricultural Sciences.)

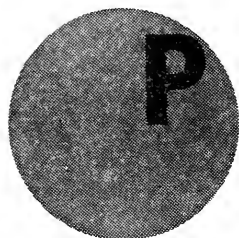
Professor: M. K. Allen (chairman, 1230 SF LC).

Associate Professors: B. Robinson, Howell, C. Taylor.

Assistant Professors: Hardy, J. W. Moffitt*, F. R. Wilkinson.

Instructor: Drewes.

Psychology



The science of psychology has a place in the general education of everyone in his search for an understanding of himself and others. It concerns itself with such questions as, How does man experience and react to the world round him? What factors and processes underlie the mental life and behavior of individuals and groups?

Psychology has specific relevance for students preparing for careers in teaching, counseling, industrial relations, social work, law, medicine, and many branches of government service. Furthermore, it enriches and clarifies for the individual many of the concepts in the arts and in the other sciences in the humanities.

For a major in psychology, a total of 45 hours is required, including Psychology 111, 360, 365, 370, 374, 378, and one seminar. The remainder of the program must be elected from upper division courses. Courses listed as Soc-Psych (Social-Psychology) may be used for credit either in Psychology or Sociology, but not in both. A maximum of 10 of the 45 hours may be chosen from a selected list of courses in other departments, with the consent of the student's adviser in the department.

For students minoring in psychology, the following program is recommended: Psychology 111, 311 (or any two of Psychology 360, 365, and 378), and the remaining 8 or 10 hours to be recommended according to the particular needs of the student.

The following graduate programs are also offered: a master's degree in general psychology; a master's degree for school psychologists; a Ph.D. in counseling psychology, given in collaboration with the Department of Educational Research and Services; a Ph.D. in clinical psychology; and a Ph.D. in general psychology.

Lower Division Courses

- 101. Effective Study.** (2:2:0) A.W.S. Home Study also. Staff
Budgeting time, notemaking, memorizing, improvement of reading, use of library, etc. Open to lower division students only, except by consent of instructor.
- 105. Psychology of Adjustment.** (3:3:0) A. Home Study also. Staff
Applications of psychology to typical problems of college students in such areas as emotional, social, and vocational adjustment. Not intended for those who have taken or will take Psychology 111.
- 111. General Psychology.** (5:5:0) A.W.S.Su. Home Study also. (G-SS) Staff
Foundation course covering essentials of modern scientific psychology. Prerequisite for most upper division psychology classes.

185. **Physiological Psychology.** (3:3:0) A. Prerequisite: Psychology 111.

Drewes, Wilkinson

Examination of the physiological foundations of behavior and their relations to behavior phenomena. Designed as a second course in psychology to follow Psychology 111.

205. **Applied Psychology.** (3:3:0) A.W.S. Home Study also. (†G-SS) Prerequisite: Psychology 111. Staff

Survey of applications of psychological principles and techniques in the fields of business, industry, advertising and selling, legal procedures, medicine, and education.

257. **(Soc-Psych) Group Relations and Leadership.** (3:2:2) A.W.S. Prerequisite: Psychology 111 or Sociology 111. Hardy, Larsen, Moffitt

This course may be used for credit either in psychology or sociology, but not in both.

Designed to help the individual participate effectively in group life and assist leaders to become efficient in role performance.

Upper Division Courses

311. **Advanced General Psychology.** (5:5:0) A.W. Prerequisite: Psychology 111. Allen, Drewes

Intensive survey of the general field with special emphasis on topics not covered in detail in Psychology 111. Intended for minors or other advanced students not planning to take Psychology 360, 365, and 378.

320. **Psychology of Childhood.** (3:3:0) A.W.S. Home Study also. (†G-SS) Prerequisite: Psychology 111. Allen, Howell, Taylor

Critical presentation of research on physical, mental, emotional, and social development of the child and his interests, values, and motivations. Primarily for majors and minors.

321. **Psychology of Adolescence.** (3:3:0) A.W.S. Home Study also. (†G-SS) Prerequisite: Psychology 111. Howell, Taylor

Development and maturation during adolescence, with special attention to research methodology. Programs of sex-social adjustment, independence, vocational adjustment, and emotional and social maturing in our society.

322. **Psychology of Adult Life.** (3:3:0) W. Home Study also. (G-SS) Prerequisite: Psychology 111. Taylor

Physiological, intellectual, personality, and motivational changes associated with adulthood.

330. **Industrial Psychology.** (3:3:0) A.S. Prerequisite: Psychology 111. Hardy, Moffitt

Special application of psychology in human relations program for management. Important issues in relation to motivation, morale, safety efficiency, etc.

335. **Business Psychology.** (3:3:0) Not given this year. Home Study also. Prerequisite: Psychology 111. Staff

Psychological aspects of business, especially in advertising, personal selling and research techniques in these fields.

337. **Personnel Psychology.** (3:3:0) A.W.S. Prerequisite: Psychology 111. Lee
Selection, application, and interpretation of psychological tests; job analysis; personality problems of the worker.

338. **Supervised Experiences in Personnel Psychology.** (3:1:6) S. Prerequisites: Psychology 111 and 337. Lee

Individual and group projects in employment and placement, personnel interviewing, and employee morale questionnaires.

- 340. Mental Hygiene.** (3:3:0) A.W.S. Home Study also. (G-SS) Prerequisite: Psychology 111. Robinson, Taylor, Wilkinson
Intended to yield insight into prevention and amelioration of mental and personal difficulties. Important for prospective parents, teachers, and social workers.
- 350. (Soc-Psych) Introduction to Social Psychology.** (3:3:0) A.W.S. Home Study also. (†G-SS) Prerequisite: Psychology 111 or Sociology 111. Dyer, Hardy, Larsen
This course may be used for credit either in psychology or sociology, but not in both.
Nature of social influence; socialization; concepts of norm, role, status; development of beliefs and attitudes; leadership; group processes. Applications to prejudice, persuasion, social control.
- 360. Cognitive Processes.** (4:4:0) A.W.S. Prerequisite: Psychology 111. Allen, Wilkinson
Core course for majors, minors, and other advanced students. Theories of and function; learned and unlearned factors in perception; thinking; relationships to other psychological functions.
- 365. Motivation.** (4:4:1) A.W.S. Prerequisite: Psychology 111. Hardy, Moffitt
Core course for majors, minors, and other advanced students. Theories of motivation; research methods and results; bases of motivation; emotions and motivation; measuring motivation; motivation as related to learning and cognitive processes; practical implications of motivation study.
- 370. Elementary Statistics.** (5:5:5) A.S. Howell, Moffitt
Logic and understanding of basic descriptive and inferential statistics. Problems and techniques of central tendency, variability, standard error, concepts of significance and correlation.
- 374. Experimental Psychology.** (4:2:6) A.W. Prerequisite: Psychology 111, 370, of equivalent. Drewes, Wilkinson
Exploring application of experimental methods to a wide variety of psychological areas including cognition, learning, motivation and abilities.
- 378. Abilities.** (4:4:0) A.S. Prerequisite: Psychology 111. Howell, Taylor
Core course for majors, minors, and other advanced students. Statistical methodology of assessing and interpreting abilities; tests of abilities and their purposes; group differences of abilities.
- 440. Clinical Psychology.** (3:3:0) A. Prerequisite: Psychology 111. Robinson, Taylor
Survey of the field of clinical psychology; professional relationships; etiology of problem behavior; diagnostic techniques and remedial procedures; application to home, school, industry, and community.
- 445. Exceptional Children.** (3:3:0) W. Home Study also. Prerequisite: Psychology 111. Allen, Taylor
Diagnosis of exceptionality; psychological significance; gifted, mentally retarded, physically and emotionally handicapped children; treatment measures. Survey course for students interested in management of children.
- 491, 492, 493. Psychology Seminar.** (1:2:0 ea.) A.W.S. One seminar required of psychology majors. Staff
Reports and discussions of special topics and current psychological literature.
- 495. Independent Readings.** (1-3:1-3:0) A.W.S. Staff

Advanced Undergraduate or Graduate Courses

- 510. The Psychology of Aesthetics.** (3:3:0) A.S. Prerequisite: Psychology 111. Drewes, Taylor
Art as perceptual stimulus; the nature of artistic creativity; psychological symbolism expressed in the arts; the artist as a person.

540. **Abnormal Psychology.** (3:3:0) S. Prerequisite: Psychology 111 and consent of instructor. Allen
550. **Psychology of Personality.** (4:4:0) A.S. (†G-SS) Prerequisite: Psychology 111 and five additional hours in psychology. Moffitt
552. **(Soc-Psych) Personality: Culture and Society.** (3:3:0) A. Prerequisite: 12 hours of psychology or sociology. Hardy
This course may be used for credit either in psychology or sociology, but not in both.
Study of the role of culture and society in the formation and functioning of personality.
554. **Psychology of Religion.** (3:3:0) S. Prerequisite: Psychology 111. Allen
Classification of religious behavior and experience; sources of religious motivation; religion and the growth process; personality and religious choices; mental hygiene assets and hazards in religion.
555. **(Soc-Psych) Group Dynamics.** (3:3:0) W. Hardy
This course may be used for credit either in psychology or sociology, but not in both.
Research and theories in group dynamics.
560. **Psychology of Learning.** (3:3:0) W. Prerequisite: Psychology 111. Allen, Drewes
574. **Advanced Experimental Psychology.** (3:2:7) S. Prerequisite: Psychology 111, Psychology 374, or equivalent. Drewes, Wilkinson
580. **Comparative Psychology.** (5:5:0) S. Prerequisite: Psychology 111. Wilkinson
585. **Advanced Physiological Psychology.** (5:5:0) W. Prerequisite: Psychology 111. Drewes, Wilkinson
598. **Independent Research.** (1-3:1-3:0) A.W.S. Staff

Graduate Courses

610. **Systematic Psychology I: History of Psychology.** (4:4:0) A. Howell
611. **Systematic Psychology II: Psychological Theory.** (4:4:0) W. Moffitt
612. **Systematic Psychology III: Contemporary Problems in Psychology.** (4:4:0) S. Taylor
626. **Mental Deficiency.** (3:3:0) S. Allen
627. **Gifted Children.** (2:2:0) A. Allen, Taylor
628. **Psychology of the Physically Handicapped.** (3:3:0) Not given this year. Taylor
640. **Individual Test Practice: Infants and Children.** (5:2:6) W. Howell, Taylor
641. **Individual Test Practice: Adolescents and Adults.** (3:1:4) S. Howell, Taylor
642. **Special Clinical Testing.** (3:1:6) Not given this year. Howell, Taylor
651. **Problems in Psychopathology.** (3:3:0) S. Allen, Drewes, Taylor
655. **Psychosomatic Problems.** (3:3:0) W. Trunnell
670. **Advanced Statistics I.** (3:3:0) A. Howell, Moffitt
671. **Advanced Statistics II.** (3:3:0) W. Howell, Moffitt

672. **Advanced Statistics III.** (3:3:0) S. Not given this year. Moffitt
675. **Experimental Psychodynamics.** (3:3:3) A. Not given this year. Staff
680. **Introduction to Psychotherapy.** (3:3:0) W. Robinson
690. **Seminar: Research Problems.** (1:2:0) A.W.S. Not given this year. Staff
695. **Independent Readings.** (1-3:1-3:0) A.W.S. Staff
699. **Thesis for Master's Degree.** (Arr.) A.W.S. Staff
720. **Seminar: Clinical Problems of Genetic Psychology.** (2:2:0) Not given this year. Howell, Taylor
740. **Introduction to Projective Techniques.** (3:3:0) A. Taylor
741. **Rorschach Test Practice.** (5:2:6) W. Howell, Robinson, Taylor
743. **Practicum: Diagnostic Testing.** (3:1:6) S. Not given this year. Staff
747. **Internship in Clinical Testing.** (3-6:2:7-16) A.W.S. Staff
748. **Internship in Clinical Testing.** (3-6:2:7-16) A.W.S. Staff
Continuation of Psychology 747.
750. **Seminar: Personality.** (2:2:0) A. Not given this year. Staff
760. **Seminar: Learning.** (2:2:0) S. Not given this year. Staff
780. **Individual Psychotherapy: Practicum.** (4:2:2) A. Not given this year. Staff
781. **Individual Psychotherapy: Practicum.** (4:2:2) W. Not given this year. Staff
Continuation of Psychology 780.
782. **Group Therapy: Theory and Practice.** (4:2:4) Not given this year. Staff
783. **Play Therapy: Theory and Practice.** (4:2:4) S. Taylor
799. **Dissertation.** (Arr.) A.W.S. Staff

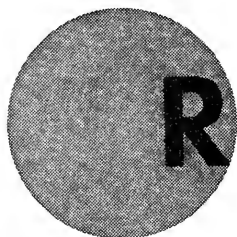
Public Relations

(See courses in Journalism.)

Radio and Television

(See courses in Journalism and in Speech and Dramatic Arts.)

Recreation



Professors: I. Heaton (chairman, 236 SFH),
Hart, Hartvigsen, Holbrook.

**Assistant
Professors:** F. W. Dixon, A. Heaton.

Instructors: Calderwood, Hafen, Jacobsen.

A student interested in recreation may complete courses for a recreation major, a minor, or a composite major. He may also take specified recreation courses to fill certain religion requirements, and he may register for recreation courses on an elective basis.

Recreation Major

A student majoring in recreation should take the following courses: Recreation 301, 387, 388, 503, 505, 537, 579; Health 121; Speech 103; Sociology 449; Instr. 324; P.E. 375 or 376; 15 hours of approved courses from the departments of Instruction, Physical Education, Art, and Music, and ten additional hours of approved electives. Requirements for a composite major are listed in the College of Education section of this catalog under Health, Physical Education, and Recreation. (See department chairman for a copy of the complete four-year course of study in recreation education.) Appropriate substitutions may be made with the consent of the department chairman.

Recreation Minor

Students minoring in recreation should take the following courses: Recreation 301, 387 or 388, 537, and 16 hours of approved electives.

Intramural Participation

Students are encouraged to participate in the following intramural activities on a non-credit basis. These activities are conducted afternoons, evenings, and on Saturdays.

Autumn

Golf
Cross Country Run
(Turkey Trot)
Flag-football
Horseshoes
Tennis
Badminton
Handball
Table tennis
Volleyball

Winter

Basketball
Paddleball
Bowling
Checkers
Chess
Table tennis
Boxing
Fencing
Gymnastics
Wrestling
Skiing

Spring

Table tennis
Badminton
Softball
Handball
Horseshoes
Tennis
Archery
Swimming
Track and Field

Lower Division Courses

121. Bowling. (1:0:3) A.W.S. Fee.

Dixon

123. **Skills and Techniques for Outdoor Recreation.** (1:0:3) S. Staff
 181. **South American Dances.** (1:0:3) A.W.S. A. Heaton
 283. **Advanced Social Dancing.** (1:0:3) A.W.S. A. Heaton

Upper Division Courses

301. **Introduction to Recreation.** (3:3:0) A. I. Heaton
 331. **Theory of Play.** (3:3:0) A. Home Study also. Staff
 371. **Planning for Family and Neighborhood Recreation.** (2:2:0) Home Study also. Holbrook
 387. **Planning for Social Recreation.** (2:2:0) A.W.S. Home Study also. (G-R) Staff
 Principles and techniques in arranging for and conducting social recreation for family and church groups.
 388. **Leadership in Church Dances.** (2:2:0) A.W.S. (G-R) Staff
 Designed to give experience and training in dance programs for community, school, and particularly church recreation leaders.

Advanced Undergraduate or Graduate Courses

502. **Camping Education.** (2:2:0) S. Staff
 503. **Administration of School and Community Camps.** (3:3:0) S. I. Heaton
 Objectives and problems involved in establishing community and school camps. Best practices dealing with location, safety, health, and program of activity thoroughly analyzed.
 505. **Administration of Community Recreation.** (3:3:0) W. I. Heaton
 Problems peculiar to the organization and administration of a community recreation program including objectives, legal aspects, facilities, personnel, activities, budgeting, and public relations.
 537. **Philosophy of Recreation.** (3:3:0) A.W.S. I. Heaton
 Importance of education for leisure and analysis of needs of individuals for recreation in our modern complex society.
 579. **Directed Leadership in Recreation.** (2-6:1:6-18) A.W.S. Prerequisite: consent of department chairman. I. Heaton
 Supervised experience in public and private recreation programs.

Graduate Courses

607. **The Conduct of Playgrounds.** (3:3:0) S. A. Heaton
 609. **The Recreation Program.** (3:3:0) A. I. Heaton
 683. **Workshop in Recreation Dance.** (2:2:0) A. A. Heaton
 694. **Seminar in Readings.** (2:2:0) A.W.S. I. Heaton
 696. **Seminar in Problems in Recreation.** (1:1:0) W. I. Heaton
 698. **Field Projects.** (2-7:2-5:0) A.W.S. I. Heaton
 699. **Thesis for Master's Degree.** (2-6:2-5:0) A.W.S. I. Heaton

These courses also count in Recreation:

Art 121. **Elementary Drawing.** (4:4:4)

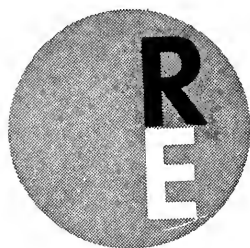
Art 226. **Art for Elementary Teachers.** (3:3:0)

- Art 256. Sculpture. (2:2:4)
- Art 259. Ceramics. (2:2:4)
- Art 263. Crafts. (2:2:4)
- Botany 230. Trees and Shrubs. (3:3:0)
- Instruction 305. Audio-Visual Education. (3:3:1)
- Instruction 324. Arts and Crafts for Elementary Teachers. (2:4:0)
- Instruction 325. Arts and Crafts for Early Childhood. (2:4:0)
- Instruction 624. Arts and Crafts for Elementary Teachers. (2:2:2)
- Instruction 626. Arts and Crafts for the Handicapped. (2:2:2)
- Instruction 663. Directing Out-of-Class Activities in Secondary Schools. (3:3:0)
- Health Education 121. First Aid. (2:3:0)
- Health Education 696. Seminar in Problems. (1:1:0)
- H.D.F.R. 210. Child Development I. (3:3:0)
- H.D.F.R. 211. Observation in the Human Development Laboratories. (1:0:2)
- H.D.F.R. 324. Creative Play in Childhood. (3:3:0)
- H.D.F.R. 510. Child Development II. (5:3:4)
- Industrial Education 260. Recreational Handicrafts. (1-3:0:2-6)
- Industrial Education 464. Plastics. (2:0:4)
- Industrial Education 466. Art Metal Crafts. (2:0:4)
- Journalism 211. News Writing. (3:3:2)
- Journalism 212. Reporting. (3:1:6)
- Music—1 hour in any vocal class.
- 1 hour in any instrumental class.
- Music 102. Fundamentals of Music. (3:3:0)
- Music 237. Varsity and Marching Band. (1:0:5)
- Music 301. Elementary Baton Technique and Hymnody. (2:2:0)
- Music 302. Intermediate Baton Technique and Ward Choir Direction. (2:2:0)
- Physical Education—any six hours of activity courses numbered from 101 to 286.
- Physical Education 314. Administration of Intramural Sports. (2:2:0)
- Physical Education 375. Physical Education for Teachers of Primary Grades. (2:1:3)
- Physical Education 376. Physical Education for Teachers of Intermediate Grades. (2:1:3)
- Physical Education 571. Teaching Progression in Team Sports—Men. (2:2:0)
- Physical Education 572. Teaching Progression in Team Sports—Women. (2:2:0)
- Physical Education 602. Seminar in Administration. (3:3:0)
- Physical Education 603. Planning and Administration of Facilities. (3:3:0)
- Physical Education 604. Intramural Organization and Management. (3:3:0)
- Physical Education 605. Personal and Public Relations in Physical Education, Health, and Recreation. (3:3:0)
- Physical Education 673. Physical Education in the Elementary School. (3:3:0)
- Physical Education 694. Seminar in Readings. (2:2:0)
- Physical Education 696. Seminar in Problems. (1:1:0)

- Physics 177. Physics of Light and Photography. (4:3:3)**
- Political Science 335. Municipal Government and Administration. (3:3:0)**
- Political Science 532. Personnel Administration. (3:3:0)**
- Sociology 351. Sociology of Recreation. (3:3:0)**
- Sociology 357. Group Relations and Leadership. (3:3:0)**
- Sociology 383. Juvenile Delinquency. (3:3:0)**
- Sociology 387. Social Aspects of Mental Health. (3:3:0)**
- Sociology 449. Community Organization, Action and Planning. (3:3:0)**
- Speech and Dramatic Arts 103. Group Discussion. (2:2:0)**
- Speech and Dramatic Arts 305. Parliamentary Procedures. (2:2:0)**
- Speech and Dramatic Arts 412. Religious Drama. (2:2:0)**
- Youth Leadership 302. Summer Camp Administration. (1:full summer)**
- Youth Leadership 372. Cub Leadership. (3:3:1)**
or
- Youth Leadership 373. Boy Scout Leadership. (3:3:1)**
or
- Youth Leadership 374. Explorer Leadership. (3:3:1)**
- Youth Leadership 377. Scouting in the L.D.S. Church. (2:2:1)**
- Youth Leadership 391. Conference Planning Techniques. (2:2:1)**

Religious Education

Professors: Belnap (chairman, 112 S), Berrett.



An undergraduate major or minor is not offered in this department. A graduate major or minor is offered at the master's level but not at the doctoral level (See section on College of Religious Instruction). A master's program in Religious Education is a composite program including courses from other departments of the College of Religious Instruction.

Advanced Undergraduate or Graduate Courses

534, 535, 536. Advanced Theology. (2:4:0 ea.) Su. Berrett, Staff

Graduate Courses

601. Survey of Religious Education. (3:3:0) A. Belnap

603, 604. Methods of Teaching Religion in the Secondary School. (3:5:0 ea.) Su. Berrett, Staff

605, 606. Curriculum of Religion in Secondary Schools. (3:5:0 ea.) Su. Berrett, Staff

607, 608. Methods of Teaching Religion in College. (3:5:0 ea.) Su. Berrett, Staff

609, 610. Curriculum of Religion in Colleges. (3:5:0 ea.) Su. Berrett, Staff

611. Problems of Teaching Religion. (2:4:0) Su. Staff

621. Teaching the Old and New Testament. (3:3:0) W.Su. Staff

622. Teaching L.D.S. Church History and the Book of Mormon. (3:3:0) S. Su. Staff

631. Analysis of Religious Experience. (3:3:0) W.Su. Belnap

R.O.T.C.

(See courses in Air Science.)

Scouting Education

(See courses in Youth Leadership.)

Secretarial Training

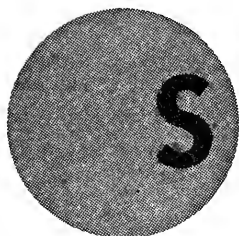
(See courses in Business Education and Office Management.)

Professors: Bradford (chairman, 1216A SF LC), Ballif, Symons.

Associate Professors: Canning, Christiansen, Dyer, Empey, Smith.

Assistant Professors: V. W. Larsen, Payne.

Sociology



Sociology is one of the social sciences which study human behavior. Specifically, sociology studies how behavior is affected by the fact that men interact with one another, live in groups, and develop social systems, institutions, roles, statuses and culture.

Sociology, therefore, has relevance for those planning careers of social work, teaching, counseling, research, professional scouting, Red Cross work, community planning, and government service.

Suggestions for a Major

Majors in the department are required to take Sociology 111, 112, 320, 503, 504, 505, 519, 528, and to present total sociology credit of 45 hours or more. A maximum of 10 of the 45 hours may be chosen from a selected list of courses in other departments, with consent of the departmental adviser. Courses listed as Soc-Psych (Social Psychology) may be used for credit either in Psychology or Sociology, but not in both.

Recommended courses, beyond those required, are listed below for each of several goals that sociology majors might have in mind.

General cultural education: any or all courses.

Teaching: 348, 350, 357, 380, 389, 392, 403, 423, 426, 443, 446, 449, 460, 512, 542, 543, 550, 551, 555, 560, 570.

Social work: 316, 348, 350, 357, 360, 362, 363, 380, 389, 392, 403, 426, 449, 543, 551, 552, 555, 560, 580.

Research: 520, 521, 524, 536, 590.

Sociology is one of the subjects comprising the composite major in social science designed for prospective teachers. See courses in Social Science listed under the College of Education.

Suggestion for a Minor

Ten hours of upper division courses plus Sociology 111 and 112.

Lower Division Courses

- 111. Introductory Sociology.** (5:5:0) A.W.S. Home Study also. (G-SS) Staff
Foundation course designed to give groundwork for all sociological study. Presents general view of how social organization affects human behavior.
- 112. Social Problems.** (5:5:0) A.W.S. Home Study also. (G-SS) Staff
Analyzes forces within society which produce disorganization. Considers specific problems such as crime, race relations, mental health, divorce, alcoholism and delinquency.

125. **Applied Sociology.** (3:3:0) A.W.S. (G-SS) Staff
Presents applications of sociological principles and teachings in such fields as teaching, business and industry, nursing, military life, and medicine.
257. **(Soc.-Psych.) Group Relations and Leadership.** (3:3:0) A.W.S. Home Study Staff
also.
Designed to help the individual participate effectively in group life and to assist leaders to become efficient in role performance.

Upper Division Courses

316. **Social Control.** (3:3:0) S. Larsen, Smith
Studies importance of public opinion, belief, social suggestion, ceremony, personal ideals, etc. as means of controlling behavior.
320. **Social Statistics.** (5:5:0) A. Home Study also. Canning, Smith
Considers statistical procedures used in sociological research, including analyses of measurements of central tendency, dispersion, symmetry, testing, hypotheses, estimation from samples, and scientific prediction.
348. **Collective Behavior.** (2:2:0) A. Ballif, Larsen
This course deals with the action of groups which operate without clear-cut direction from the culture within which they are found. Such groups as lynching mobs, riots, and crowds are analyzed as well as mass behavior and communication. The causes, nature, and consequences of such behavior are considered.
350. **(Soc.-Psych.) Introduction to Social Psychology.** (3:3:0) W. (G-SS) Pre-requisite: Sociology 111 or Psychology 111. Staff
Nature of social influence; socialization; concepts of norm, role and status; development of beliefs and attitudes; leadership; group processes. Applications to prejudice, persuasion, social control.
360. **Introduction to Social Work.** (3:3:0) A. Ballif, Symons
Introductory survey of the various fields and methods of social work. Considers implications of social work for the related professions.
362. **Introduction to Social Case Work.** (2:2:0) W. Ballif, Symons
Analyzes principles and practices of case work with the maladjusted and dependent.
363. **Introduction to Field Experience in Social Work.** (1:1:0) W. Ballif, Symons
Designed to acquaint the student with agencies actually engaged in social work. To be taken concurrently with Sociology 362.
380. **Introductory Criminology.** (3:3:0) A. Home Study also. Empey, Smith, Symons
Analyzes nature and extent of criminal behavior. Emphasizes current theory and research as they relate to the causes of crime.
383. **Juvenile Delinquency.** (3:3:0) W. Home Study also. Prerequisite: Sociology 111. Empey, Smith, Symons
Analyzes lawlessness of children and adolescents. Stresses causations, treatment, prevention and outlook.
386. **Organized Crime.** (3:3:0) S. Prerequisites: Sociology 111, 380. Empey, Symons
Study of historical backgrounds for development of organized crime in the United States. Considers proposals for prevention.
389. **Social Aspects of Mental Health.** (3:3:0) S. Home Study also. Canning, Symons
Study of personality disorders and emotional maladjustments which originate in group life. Discusses social causation, treatment, and prevention of mental ills.

- 392. Racial and Minority Group Relations.** (3:3:0) W. Home Study also. (G-SS)
Ballif, Larsen
Studies basic processes in present-day inter-relations of racial and minority groups. Analyzes prejudice, its causes, and programs for its reduction.
- 403. Marriage and the Family in American Society.** (3:3:0) A.W.S. Home Study also.
Bradford, Canning, Christiansen, Dyer, Empey
Analyzes the effect that American society has upon successful marriage and family living. Various roles in the family such as the father, mother, child, adolescent, and the aged are discussed in connection with the kinds of problems each faces in contemporary society.
- 420x. Population Problems.** (3) Home Study only. Smith
A study of the growth and distribution of population. Such subjects as population density and mobility, birth and death rates, population types, and migration will be examined in order to show their relationship to important problems today encountered in education, labor, government and other facets of modern life.
- 423. The Sociology of Rural Life.** (3:3:0) A. Home Study also.
Bradford, Christiansen, Payne, Symons
Gives attention to the particular factors and problems of rural life.
- 426. The Sociology of Urban Life.** (5:5:0) W. Payne, Smith
Gives attention to particular factors and problems of urban life. Emphasizes human ecology.
- 443. Sociology of Adjustment in Modern America.** (3:3:0) S. (G-SS)
Bradford, Dyer, Empey
Practical course designed to assist the individual in understanding some of the basic features of present-day America.
- 446. Human Relations in Industry.** (3:3:0) A. Larsen
Studies role that social forces play in determining industrial organization. Emphasizes labor-management relations and problems of applied industrial sociology.
- 449. Community Organization, Action, and Planning.** (3:3:0) A. Home Study also. (G-SS)
Ballif, Dyer, Larsen
Considers basic fundamentals of community life. Analyzes techniques and methods for organizing community resources for efficient achievement of community objectives.
- 460. Cultural Anthropology.** (3:3:0) W. Home Study also.
Canning, Dyer, Sorenson
Considers meaning and content of culture in various societies throughout the world.

Advanced Undergraduate or Graduate Courses

- 503. Systematic Sociology I.** (3:3:0) A. Prerequisite: Sociology 111.
Bradford, Canning
Analysis of the development of sociological theories and generalizations.
- 504. Systematic Sociology II.** (3:3:0) W. Prerequisite: Sociology 111.
Bradford, Canning, Dyer, Smith
Analysis of generalizations derived by sociology concerning how social interaction, groups, institutions, roles, statuses, and culture affect human behavior.
- 505. Systematic Sociology III.** (3:3:0) S. Prerequisite: Sociology 111.
Bradford, Canning, Dyer
Continuation of Sociology 504.

508. **Social Ethics.** (3:3:0) A. Lloyd
Identifies and analyzes fundamental American values and value systems.
512. **Educational Sociology.** (3:3:0) A. Smith
Analyzes principles of sociology of education and their implication for theory and practice of school administration, curricula, and methods of instruction.
516. **Sociology of Religion.** (3:3:0) W. Ballif, Smith, Empey
Analyzes influences of social factors in development of various religious systems.
519. **Methods of Research in Sociology.** (5:5:0) A.W. Prerequisite: Sociology 111.
Canning, Christiansen, Larsen, Smith
Analyzes methods used in investigation of sociological data. Field projects give the student actual experience in research.
520. **Practicum in Research I.** (2:2:0) W. Prerequisite: Sociology 111. Staff
Theory and practice in sociology research.
521. **Practicum in Research II.** (1-3:0:2-6) S. Staff
Continuation of Sociology 520.
524. **Advanced Statistics.** (3:3:0) W. Prerequisite: Sociology 111.
Canning, Christiansen, Smith
Advanced course designed for those who intend to do research or continue in graduate work.
528. **Seminar.** (3:3:0) A.W.S. Staff
Analysis, formation and integration of basic sociological concepts.
536. **Directed Research.** (1-3:0:2-6) A.W.S. Staff
Direction in methodology of research in the field of sociology and in the adequate presentation of material.
542. **Development of Social Reform Movements in the United States.** (3:3:0) W. Payne, Symons
Discusses social aspects of various movements from Adam Smith to John Dewey with special emphasis upon social reform movements in the United States.
543. **Social Legislation.** (3:3:0) Ballif
Study of basic problems and techniques of social legislation. Notes and analyzes various systems now in operation.
544. **Public Opinion.** (3:3:0) S. Ballif, Larsen, Payne
Discusses role of public opinion in various areas of social life.
550. **Effects Upon Society and Individuals of Population Processes.** (3:3:0) A. Bradford, Payne, Smith
Presents effects upon the individual and society of such population processes as migration, birth, and death. Analyzes a population policy for the United States.
551. **Sociology of Recreation.** (3:3:0) W. Ballif, Payne
Treats relations of recreational interests to growth, group behavior, and social maladjustments. Emphasizes basic theories of recreative activities.
552. **(Soc.-Psych.) Personality: Culture and Society.** (3:3:0) A. Staff
Study of the role of culture and society in the forming and functioning of personality. Compares various peoples and cultures.
555. **(Soc.-Psych.) Group Dynamics.** (3:3:0) S. Staff
560. **The Family.** (3:3:0) W. Bradford, Empey, Sorensen, Symons
Presents historical development of the family as an institution. Emphasizes the family in several different societies and problems created by various family systems.

570. **Class, Status, and Power.** (3:3:0) S. Staff
Analyzes major values that underlie such organizations as hospitals, publication systems and power relations.
580. **Social Relations in Medical and Health Organizations.** (3:3:0) Staff
Analyzes major values that underlie such organizations as hospitals, public health agencies, and medical and dental professions together with the structure of the organizations and the functions they perform in our society. Discusses interactions between the professional health person and the lay person. Course designed for pre-medical, pre-dental, and health education students.
583. **Prison Management and the Reformatory Treatment of Criminals.** (3:3:0) W. Empey, Smith, Symons
590. **Social Institutions and Social Change.** (3:3:0) W. Staff

Graduate Courses

601. **Seminar.** (2:2:0) W. Staff
Develops a conceptual scheme for studying some of the major sociological research projects.
606. **Advanced Contemporary Sociology.** (3:3:0) S. Bradford, Dyer, Smith
640. **Field Methods and Theory in Social Anthropology.** (3:3:0) S. Canning, Dyer, Sorenson
686. **Problems in Race Relations.** (3:3:0) A. Ballif, Larsen, Symons
699. **Thesis for Master's Degree.** (Arr.) A.W.S.Su. Staff
- 796, 798. **Special Research Problem.** (1-3:0:2-6) A.W.S. Staff

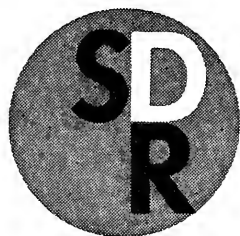
Soils

(See courses in Agronomy)

Spanish

(See courses in Languages.)

Speech and Dramatic Arts



Professors: H. I. Hansen (chairman, 124 Sp C), de Jong, A. Mitchell, Morley.
Assistant Professors: Bateman, Gledhill, Mecham, Woodbury.
Associate Professors: Clinger, Jex, K. B. Pardoe.
Instructors: Henson, McKinlay, O. Rich, Richardson, Struthers, Whittaker.

Requirements for Major

The Department of Speech and Dramatic Arts offers both B.A. and M.A. degrees. It is recommended that students who major in speech and dramatic arts qualify for the B.A. degree by completing the foreign language requirement. Students may elect to specialize in one of five areas of speech. Required courses may be waived only on acceptance of the student's petition by the department waiver committee. **Senior Seminar, Speech 491, is required of all majors and minors and is taught Spring Quarter only.**

Theatre and Dramatic Arts

	Hours
Basic courses: 101, 121, 241, 460, 471, 491	22
Requirements for specialization: 122, 123, 126, 316, 317, 318 (319, 320, 321—6-9 hours) and 422 or 423.	26-29
Total Hours	48-51

Additional courses recommended: Speech 260, 315; English 282, 345, 356, 382, 543; Physics 103.

Sequence of Courses

	Autumn	Winter	Spring	Any
First Year	101 (5)	121 (3)	122 (3)	
Second Year		123 (5) 422 (3)	423 (3)	
Third Year	319 (2)	320 (2)	321 (2) 325 (3)	460 (3) 471 (5)
Fourth Year	316 (3)	317 (3)	491 (3)	

Public Speaking

	Hours
Basic courses: 101, 121, 241, 460, 471, 491	22
Requirements for specialization: 103, 111, 122, 401, 402, 403, 8 or 9 hours of electives from 255, 305, 325, 547	26
Total Hours	48

Additional courses recommended: Speech 260; courses in American history and government.

Sequence of Courses

	Autumn	Winter	Spring	Any
First Year	101 (5)	121 (3)	241 (3)	
Second Year	111 (3)	122 (3)	103 (2)	
Third Year	401 (3)	402 (3)	403 (3)	460 (3)
Fourth Year			491 (3)	

Speech and Hearing Science and Rehabilitation

Hours

Basic Courses: 101, 121, 241, 460, 471, 491	22
Requirements for specialization: 473, 480, 483, 484, 541, 545, 546, plus selection of alternatives 1, 2, or 3 below	18
1. Public School Speech and Hearing Therapy: 366, 474, 475, 482	14
2. Clinical Speech and Hearing Therapy: 472, 481, 485, 494, 542	10-13
3. Audiology: 470, 474, 482, 485, 560	14

For those seeking certification as public school speech and hearing therapists, the general elementary credential is required. Course work may be substituted as follows: Speech 475 (6 hours) for one quarter of practice teaching (Instruction 448); Speech 480, 481, 482 (2 hours each) will permit taking Instruction 534 (Overview of Elementary Instruction, 5 hours) in lieu of Instruction 345, 346, or 446 (Curriculum and Methods)

Total Hours 53

Sequence of Courses

	Autumn	Winter	Spring
First Year	101 (5)	121 (3)	
Second Year	241 (3)	470 (3)	471 (5)
Third Year	473 (3)	483 (2)	484 (2)
	480 (2)	546 (3)	460 (3)
Fourth Year	541 (3)	545 (3)	491 (3)

Note: Speech 260 (phonetics), Speech 470 (Speech Science), Speech 472 (Normal Development of Speech), Speech 547 (Psychology of Speech) and Psychology 340 (Mental Hygiene) are applicable toward A.S.H.A. certification. For instructions on additional certification requirements (A.S.H.A., Public School Credentials, etc.) consult with speech and hearing area staff.

Radio and Television

Hours

Basic courses: 101, 121, 241, 460, 471, 491	22
Requirements for specialization: 449, 452, 453, 454, 455, 456, 457, plus twelve hours from the following: 123, 251, 255, (319, 320, 321—3 hours only), 346, 347, 348, 351, 450, Journalism 351, 352	26
Total Hours	48

Sequence of Courses

	Autumn	Winter	Spring
First Year	101 (5)	121 (3)	123 (5)
Second Year	241 (3)	251 (3)	255 (3)
Third Year	452 (1)	453 (1)	454 (1)
	351 (3)	Jour. 351 (3)	Jour. 352 (3)
	346 (1)	347 (1)	348 (1)
Fourth Year	450 (5)	460 (3)	491 (3)
	455 (2)	456 (2)	457 (2)
		449 (5)	

Students majoring in this area should select a closely related minor. The following minors are suggested: sociology, psychology, political science, journalism, music, commerce, English, education, or home economics.

General Speech for Teachers in Secondary Schools

	Hours
Basic Courses: 101, 121, 241, 460, 471, 491	22
Requirements for specialization: 103, 111, 122, 123, 126, (319, 320, 321—6 hours), 401	24
Total Hours	46

Additional courses recommended: Speech 260, 305, 317, 470.

For those students who plan to qualify for a Secondary Teaching Certificate, Speech 377, 478, and 479 will be required.

Sequence of Courses

	Autumn	Winter	Spring	Any	Other Req.
First Year	101 (5)		121 (3)		Psych. 111 (5)
Second Year	111 (3)	123 (5)	321 (2)		Lang. (15)
	122 (3)	320 (2)	126 (2)		Lang. (15)
	319 (2)				
Third Year	241 (3)		377 (4)	460 (3)	Physics 103 (3)
	401 (3)			471 (5)	
Fourth Year		478 (4)	491 (3)		
		479 (6)			

Requirements for Minor

The requirements for the general minor in speech are made up of the following courses: Speech 102; 121; 460; 6 hours from 319, 320, and 321; and 7 hours of electives.

The requirements for a minor in speech and hearing rehabilitation are Speech 101, 121, 366, 471, 473, 480, 482, 483, 484, and 545.

Lower Division Courses

- 101. Fundamentals of Speech.** (5:5:0) A.W.S. Staff
Beginning course to aid self-improvement in speech as a mode of communication. Provides opportunity to practice for greater effectiveness in personal use of the various speech skills. Recommended for speech majors, prospective teachers, and students who desire improvement in their everyday speech activities.
- 102. Introduction to Public Speaking.** (3:3:0) A.W.S. Staff
Practical and general service course designed for students who desire to improve their speech efficiency, poise, and self-confidence in public speaking situations. Provides opportunity to develop and improve skill in organization and delivery of all types of speeches encountered in business, professional, social, and religious activities.
- 103. Group Discussion.** (2:2:0) A.W.S. Staff
Concerned with a basic democratic procedure—cooperative thinking. For those who serve on committees or boards, attend staff meetings, talk over common problems in church, school, or office and for all who are preparing to participate in or lead informal discussion in small groups. Promotes more effective group thinking through discussion.
- 105p. Speech Clinic.** (1:1:0) A.W.S. Staff
Corrective treatment of stuttering, lisping, and other forms of speech disorders.

- 106p. Speech Coaching.** (1:1:0) A.W.S. Staff
Personal attention to individual needs beyond classroom practice.
- 107, 108, 109. Speech for Foreign Students.** (2:2:3 ea.) A.W.S. Jex
- 111. Introduction to Argument and Debate.** (3:3:0) A.W.S. Richardson
Principles of argumentation and practice in debate.
- 112, 113, 114. Debate Techniques.** (1:1:1 ea.) A.W.S. Bateman, Richardson
Open to members of the forensic squad who obtain approval of the Speech Department and Debate Council. To obtain credit in debating, students must register for this course with at least two hours of instruction each week.
- 121. Voice and Diction.** (3:3:2) A.W.S. (G-HA) Staff
- 122. Fundamentals of Interpretation.** (3:3:2) A.W.S. (G-HA) Prerequisite: Speech 121. Staff
- 123. Fundamentals of Acting.** (5:3:2) A.W.S. (G-HA) Hansen, Woodbury
Study of character enactment.
- 126. Make-up.** (2:2:0) A.W.S. Staff
- 241. Introduction to Radio and Television Broadcasting.** (3:3:2) A.W.S. McKinlay, Rich
Discussion of scope, influence, current practice, problems, and social implications of the American system of radio and television broadcasting; microphone and TV camera practice and experience.
- 251. Radio and Television Studio and Control Room Techniques.** (3:3:0) A.W. Rich
Use of radio and TV facilities, sound effects, records, TV lighting and staging.
- 255. Beginning Radio and Television Production.** (3:3:0) W.S. McKinlay, Rich
Practice in performance, production, and direction of radio and television dramatic and commercial programs. Adaptation of basic dramatic talent to the broadcast media.
- 260. Practical Phonetics.** (3:3:0) A.S. de Jong
Designed to give better understanding of diction in English and foreign languages.

Upper Division Courses

- 301, 302, 303. Debate Techniques.** (1:1:1 ea.) A.W.S. Richardson
Open to members of the forensics squad who obtain approval of the Speech Department and the Debate Council. To obtain credit in debating, students must register for this course with at least two hours of instruction each week.
- 304p. Public Speaking.** (1:1:0) A.W.S. Staff
Individual instruction. Fee.
- 305. Parliamentary Procedures.** (2:2:0) S. Bateman
Rules governing organizations and legislative bodies.
- 307. Program Directors.** (1:1:0) A.W.S. Staff
Class designed to help and train students in the art of directing and emceeing formal and informal programs. To cover audience psychology; how to introduce a performer; how to tell a story; how to form and direct entertainment programs.

- 315. Introduction to the Theatre.** (3:3:0) (G-HA) A.W.S. Staff
Introduces students to fundamental theories of theatre arts to develop a discriminating appreciation and to provide a basic background for those interested in theatre.
- 316, 317, 318. Theatre History.** (3:3:0 ea.) A.W.S. (G-HA) Hansen, Woodbury
- 319, 320, 321. Stage Craft.** (1-3:3:0-3; 1-3:0:6-9; 1-3:0:6-9) 319—Home Study Struthers
also.
Lecture and laboratories on college and workshop productions.
- 323. Technique of Playwriting.** (3:3:0) A. Home Study also. Mitchell
- 324. Historic Costume.** (3:3:0) W. Staff
- 325. Advanced Interpretation.** (3:3:0) S. (G-HA) Staff
- 346, 347, 348. Advanced Radio Production Workshop.** (1:0:1 ea.) A.W.S. Pre-requisite: consent of instructor. Rich
Experience in planning and producing radio programs for off-campus stations.
- 351. Radio and Television Program Writing.** (3:3:0) S. Prerequisite: consent of instructor. McKinlay
Practice in writing various types of low-cost radio and television programs.
- 401. Advanced Speech Composition.** (3:3:0) A. Prerequisite: Speech 101. Staff
Advanced study and practice in styles of speaking.
- 402. Advanced Argument and Debate.** (3:3:0) W. Prerequisite: Speech 111. Staff
Analysis of classic debates and practice in argumentative writing and speaking.
- 403. Persuasive Speaking.** (3:3:0) A.W.S. Prerequisite: Speech 101 or 102. Staff
Study and practice of advanced persuasion as used in formal and informal speaking.
- 412. Religious Drama.** (2:2:0) A.W.S. Hansen
- 422. Intermediate Acting.** (3:3:2) A.W. Prerequisite: Speech 123 or consent of instructor. Hansen
- 423. Advanced Acting.** (3:3:2) S. Prerequisite: consent of instructor. Hansen
- 427p. Dramatic Technique.** (2:2:0) A.W.S. Staff
- 449. Radio and Television Programs and Audiences.** (5:5:0) A. Offered 1960-61 and alternate years. McKinlay
Analysis and extensive observation of basic program forms used in radio and television; requirements of effective program structures and appeals; consideration of audience situation and measurement.
- 450. Radio and Television Law and Program Planning.** (5:5:0) W. McKinlay
Discussion of the influence of public attitudes and decisions of regulatory bodies on basic program standards; practice in planning radio and television programs consistent with these standards.
- 452, 453, 454. Radio and Television Announcing.** (1:1:0 ea.) A.W.S. Prerequisite: Speech 121, 241, or consent of instructor. McKinlay
Practice in presentation of all types of radio and television announcer materials.

- 455, 456, 457. Television Production and Direction Workshop.** (2:2:0) A.W.S.
Prerequisite: consent of instructor. Rich
Practice in production and direction of television programs for educational and commercial TV stations.
- 460. Directing.** (3:3:2) A.W.S. Home Study also. Prerequisite: consent of instructor. Staff
For advanced students only.
- 470. Speech Science.** (4:3:2) W. Morley
Study of the aspects of physics, physiology, phonetics, and experimental phonetics that underlie the speech process.
- 471. Introduction to Speech Correction.** (5:3:2) A.W.S. Home Study also. Prerequisite: Speech 121. Morley
Causes, symptoms, and treatment of various types of abnormal speech.
- 472. Normal Development of Oral Language.** (2:2:0) A. Mecham
- 473. Introduction to Audiology.** (3:3:0) A. Morley
- 474. Lip Reading.** (3:3:0) S. Prerequisite: Speech 473. Staff
Teaching of lip reading to children and adults.
- 491. Senior Seminar.** (3:3:0) S. Required of all seniors. Hansen, Staff

Advanced Undergraduate or Graduate Courses

- 524. High School Forensics and Programming.** (1-3:1-3:1-9) S. Bateman
- 525. Debate Coaching.** (1-3:1-3:0) A.W.S. Richardson
Course designed for prospective debate coaches. Covering debate techniques and how they are taught.
- 527. Storytelling.** (3:3:0) S. Staff
- 541. Stuttering.** (3:3:0) A. Morley
- 542. Organic Speech Disorders.** (3:3:0) W. Mecham
- 545. Public School Audiometry.** (3:3:0) W. Prerequisite: Speech 473. Staff
- 546. Anatomy of Ear and Vocal Organs.** (3:3:0) W. Mecham
- 547. Psychology of Speech.** (3:3:0) S. Prerequisite: Psychology 111. Morley
- 560. Clinical Audiology.** (3:3:0) S. Prerequisite: Speech 473. Staff
- 570, 571. Creative Dramatics.** (3:3:0) W. Mitchell
- 572, 573. Children's Theatre.** (3:3:0) S. Mitchell
- 577, 578, 579. Playwriting.** (3:1:2 ea.) A.W.S. Hansen, Mitchell

SPEECH EDUCATION

- 366. Speech in the Elementary Schools.** (3:3:0) S.W. Home Study also. Jex
Objectives and methods of developing good speech habits in children. Recognition and management of minor speech problems.
- 377. Secondary Teaching Procedures.** (4:4:2) A.W. Prerequisite: E.R.S. 305. Clinger
Lectures, demonstrations, observation.

- 475. Practice Teaching in Correction of Speech and Hearing Disorders in the Public Schools.** (6:0:20) A.W.S. Prerequisites: Instruction 118 and completion of a minimum of 150 clock hours in clinic practicum in Speech Education 483, 484, 485. Jex
Supervised teaching in public elementary school for a full quarter on a half-day basis. Qualified student clinicians who register for this course are placed in a public school district where there is a practicing public school speech and hearing correctionist. The student teachers get experience in diagnosis and therapy with children who have speech and hearing disorders. Student teachers participate in weekly seminars and personal conferences with the supervisors. The nature of this course dictates that students limit their load to 15 quarter hours. A special fee of \$15 is charged to equalize the cost of travel for student teachers regardless of location of cooperating public schools.
- 478. Unit Planning and Teaching.** (4:3:5) A.W. Prerequisite: Speech Education 377. Clinger
- 479. Secondary Student Teaching.** (7:1:20) A.W.S. Prerequisites: Speech Education 478 and completion of two-thirds of courses required for teaching major and minor or composite major. Clinger
For course description and fees see Instruction 479.
- 480. Clinical Methods in Correction of Functional Disorders of Speech.** (2:2:0) A.S. Prerequisite: Speech 471. Staff
- 481. Clinical Methods in Correction of Organic Speech Disorders.** (2:2:0) Prerequisite or concurrent registration: Speech 542. Mecham
Diagnosis and treatment of methodology.
- 483. Clinical Methods of Teaching Speech to the Deaf and Hard of Hearing.** (2:2:0) S. Prerequisite: Speech 473. Staff
- 483, 484, 485. Clinical Practice in Speech Correction.** (2:2:0 ea.) A.W.S. Prerequisites: Speech 480, 481, 482. Staff
Supervised practice in handling various types of speech and hearing disorders.

Graduate Courses

- 603. Radio and Television Projects.** (2-4:2-4:0) A.W.S. Staff
- 605. History of Radio and Television Programming.** (3:3:0) A. Staff
- 621. Ancient Rhetoric and Oratory.** (3:3:0) A. Bateman
- 622. History of British Public Speaking.** (3:3:0) W. Bateman
- 623. History of American Oratory and Public Address.** (3:3:0) S. Staff
- 640, 641, 642. Graduate Clinical Practice in Speech and Hearing.** (1-3:1-3:0 ea.) A.W.S. Staff
- 643. Methods and Problems of Research in Speech.** (3:3:0) A. Staff
- 645. Advanced Studies in Stuttering.** (3:3:0) W. Prerequisite: Speech 541. Morley
- 646. Advanced Studies in Cleft Palate.** (3:3:0) A. Prerequisite: Speech 542. Mecham
- 647. Advanced Studies in Cerebral Palsy.** (3:3:0) W. Prerequisite: Speech 542. Mecham
- 648. Advanced Studies in Aphasia.** (3:3:0) S. Prerequisite: Speech 542. Mecham

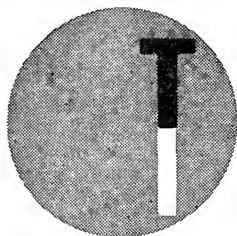
656. **Special Projects in Speech Pathology.** (1-4:1-4:0) W.S. Staff
May be repeated to a total of 4 hours.
660. **Theory of Interpretation.** (3:3:0) W. Gledhill, Woodbury
661. **Oral Interpretation of Classical Literature.** (3:3:0) W. Hansen, Woodbury
662. **Regional Dialects.** (3:3:0) S. Prerequisite: Speech 260. Clinger
663. **Program Building and Lecture Recital.** (3:3:0) S. Gledhill, Mitchell
664. **History of the Theatre I.** (3:3:0) A.W.S. Hansen
665. **History of the Theatre II.** (3:3:0) A.W.S. Hansen
666. **History of the Theatre III.** (3:3:0) A.W.S. Woodbury
667. **History of Acting.** (3:3:0) A. Woodbury
Styles and theories.
668. **Special Problems in Theatre History.** (1-5:1-5:0) A.W.S. Staff
671. **Experimental Theatre.** (2-4:2-4:0) W. Hansen
672. **Problems of the Producing Director.** (3:3:0) S. Hansen
673. **Advanced Play Production.** (3:3:0) A.W.S. Hansen
674. **Projects in Theatre.** (2-4:2-4:0) A.W.S. Staff
- 675, 676, 677. **Stage Design.** (3:1:2 ea.) A.W.S. Staff
678. **Stage Lighting.** (1-3:1-3:0) A.S. Staff
690. **Seminar in Mass Communications.** (2-4:2-4:0) A.W.S. Staff
691. **Selected Readings in Radio and Television.** (2-4:2-4:0) A.W.S. Staff
692. **Seminar in Public Speaking.** (2-4:2-4:0) A. Staff
693. **Special Studies in Speech Pathology.** (1-4:1-4:0) A.W. Staff
May be repeated to a total of 4 hours.
695. **Seminar in Psychoacoustics of Speech and Hearing.** (1-3:1-3:0) A.W.S. Staff
696. **Seminar in Interpretation.** (1-4:1-4:0) A. Staff
697. **Seminar in Arena Theatre.** (1-3:1-3:0) A.W.S. Hansen
May be repeated to a total of 9 hours.
699. **Thesis for Master's Degree.** (Arr.) Arr. Staff

These courses also count in Speech:

- Humanities 459. **Lyric Theatre.** (3:3:0)
- Journalism 211. **News Writing.** (3:2:2)
- Journalism 341. **Radio-TV News Writing.** (3:2:2)
- Journalism 346, 347, 348. **Radio-TV Workshop.** (2:0:6 ea.)
- Journalism 351. **Radio and Television Advertising.** (3:3:0)
- Journalism 352. **Radio-TV Commercial Continuity Writing.** (3:3:0)
- Journalism 671. **Research Methods in Mass Communications.** (3:3:0)
- Journalism 672. **Mass Communications and Society.** (4:4:0)

Technical and Semi-Professional Institute

Acting
Department
Chairman: W. Hales (280 ESC).
Instructor: Spencer.



Technical institutes played a minor role in American educational philosophy until the close of World War II. Since that time the expansion in American business, industry, research, and development has made it mandatory that technical and semi-professional institutes be increased in scope and number to insure efficiency in production and usage of technical manpower.

A number of studies have been made in America and England on the most efficient use of professional men in these countries. It was found that for every professionally-trained businessman, scientist, or engineer—whether employed in the office, the research laboratory, the hospital, or the field—three to seven semi-professional technicians were needed to assist him. Since America needs 30,000 trained scientists and engineers annually, the need for trained technicians is apparent.

Technical institutes are college-level institutions which specialize in the education of technicians. They are connected with state universities, community colleges, and private institutions. At Brigham Young University, an institute has been organized to train technicians in agriculture, business, and engineering. The purpose, scope, and program of the technical and semi-professional institute is well defined by the Engineers' Council for Professional Development and is quoted here for clarification and emphasis:

Curricula to be considered are technological in nature and lie in the post-high school area. They differ in content and purpose from those of the vocational school on one hand and from those of the engineering college on the other. Curricula in this field are offered by a variety of institutions and cover a considerable range as to duration and content of subject matter, but have in common the following purposes and characteristics:

1. The purpose is to prepare individuals for various technical positions or lines of activity encompassed within the field of engineering,* but the scope of the program is more limited than that required to prepare a person for a career as a professional engineer.
2. Programs of instructions are essentially technological in nature, based upon principles of science and include sufficient post-secondary school mathematics to provide the tools to accomplish the technical objectives of the curricula.
3. Emphasis is placed upon the use of rational processes in the principal fundamental portions of the curricula that fulfill the stated objectives of the curricula.
4. Programs of instruction are briefer and usually more completely technical in content than professional curricula, though they are con-

cerned with the same general fields of industry and engineering. They do not lead to the baccalaureate degree in engineering. Such designations as Engineering Aide, Technical Aide, Associate in Engineering, and Engineering Associate are appropriate designations to be conferred upon the graduates of programs of technical institute type.

5. Training for artisanship is not included within the scope of education of technical institute type:

The objectives of the Technical and Semi-Professional Institute of Brigham Young University are to program curricula, organize staff, and assemble equipment to meet all the requirements for accreditation by the E.C.P.D. and to furnish business, industry, and agriculture on a local, state, and national level with well-trained and productive technicians.

*This applies equally well to technicians in agriculture, business, and medicine.

Entrance Requirements.

Requirements for admission to the Technical and Semi-Professional Institute of Brigham Young University are the same as those for admission to the university as listed in the section called "Requirements for Admission."

Graduation Requirements.

Upon completion of 96 hours of credit in one of the technical fields described on the following pages, the student will be granted suitable certification of graduation.

AGRICULTURAL TECHNOLOGY

Specialized training and practice in various fields of agricultural technology are offered for students unable to complete the four-year professional course in agricultural science. A general course is given to freshmen entering this technology with options for more detailed specialization during the sophomore year. These options include agricultural economics, agronomy, animal husbandry, and horticulture. A student completing any one of these courses can serve as a technical aid in his special field or will have learned important skills to fit him for more efficient operation of his own farm or agricultural business. Students who decide to go on for a bachelor's degree will lose some credit in the transfer.

Freshman Year

	Hours		
	A	W	S
Religion	2	2	2
English 111, 112, 113	3	3	3
Physical Education	1	1	1
Health 130	2		
Botany 101			5
Chemistry 101, 102, 103 or			
Chemistry 111, 112, 113	5	5	5
*Electives	5	7	2
Total	18	18	18

*These electives should be filled with the following courses:

Two courses selected from:

Agr. Econ. 101 (A.W.)	5
Agr. Econ. 125 (A.S.)	3
Agr. Econ. 123 (A.W.)	3

Two courses selected from:

An. Hus. 161 (A.)	4
-------------------------	---

An. Hus. 170 (A.W.)	4
An. Hus. 215 (A.W.)	5
Two courses selected from:	
Hort. 101 (A.W.)	3
Hort. 102 (S.)	3
Hort. 103 (A.W.S.)	3
or	
Agronomy 141 (A.S.)	4
Agronomy 251 (A.W.)	4

Sophomore Year Agronomy Option

	Hours		
	A	W	S
Religion	2	2	2
Agronomy 260, 302, 455	2	4	3
Agronomy 305, 307	5		3
Agronomy 496	1	1	1
Electives**	7	10	8
Total	17	17	17

Agricultural Economics Option

	Hours		
	A	W	S
Religion	2	2	2
Agr. Econ. 310, 350, 425	3	3	3
Agr. Econ. 580, 325, 320	3	5	3
Agr. Econ. 410	3		
Electives**	7	7	9
Total	18	17	17

Animal Husbandry Option

	Hours		
	A	W	S
Religion	2	2	2
An. Hus. 366	6		
An. Hus. 171, 571	1-2	1-3	
An. Hus. 120			3
An. Hus. 208			4

An. Hus. 355 or 340

or 345			3-4
Electives**	8	12	5
Total	17-18	15-17	17-18

Horticulture Option

	Hours		
	A	W	S
Religion	2	2	2
Horticulture 107, 324, 416	3	3	3
Horticulture 319, 318, 317	5	2	2
Horticulture 352	2		
Horticulture 353	2		
Botany 112, 123		4	5
Botany 495	1	2	2
Botany 491	1		
Electives**	2	5	4
Total	18	18	18

**The student is advised to consult with his adviser on these electives.

BUSINESS TECHNOLOGY**Accounting**

Competent accountants with associated business experience are in great demand in both the industrial and business fields. The following two-year course will prepare a student for efficient and profitable service in the business field.

Freshman Year

	Hours		
	A	W	S
Religion	2	2	2
English 111, 112, 113	3	3	3
Physical Education	1	1	1
Accounting 101, 102, 230	5	5	5
B.E.O.M. 101	2		
B.E.O.M. 106	2		
History 170 or 180		5	
Economics 101			5
Health 130	2		
Total	17	16	16

Accounting 285, 350, 351	5	5	5
Accounting 316	2		
B.E.O.M. 305, 220	5	3	
Business Mgt. 347, 342		5	5
Electives	2	1	4
Total	16	16	16

Other highly recommended courses:

	Hours		
Economics 331		5	
B.E.O.M. 325		2	
B.E.O.M. 320		3	
Business Mgt. 315		2	
B.E.O.M. 480		3	

Business and Office Management

The course below is outlined for students who are interested in becoming secretaries. Students who have a high degree of skill in shorthand and type-writing upon entering the Technical and Semi-Professional Institute may substitute appropriate courses in consultation with the department chairman.

Freshman Year

	Hours		
	A	W	S
Religion	2	2	2
English 111, 112, 113	3	3	3
Physical Education	1	1	1
B.E.O.M. 111*, 112**, 113 ..	4	4	4

B.E.O.M. 101*, 102**	2	2	
Economics 101			5
Health 130	2		
B.E.O.M. 106	2		
Electives		5	
Total	16	17	15

Sophomore Year

	Hours		
	A	W	S
Religion	2	2	2
B.E.O.M. 214, 311	4	4	
B.E.O.M. 220	3		
B.E.O.M. 103, 104	2	2	

Accounting 101	5		
Business Management 342	5		
B.E.O.M. 275			5
Clothing and Textiles 110*** ..			2
Electives	3	7	
Total	16	16	16

*Not allowed if student has had one year credit in this subject in high school.

**Not allowed if student has had two years credit in this subject in high school.

***Elective, for girls only.

Commercial Art or Advertising

This close relationship and dependency of commerce and advertising to art is acclaimed in every current magazine. The associated problems and skills in this field of technology are studied and partially mastered in the following two-year course.

Freshman Year

	Hours		
	A	W	S
Religion	2	2	2
English 111, 112, 113	3	3	3
Physical Education	1	1	1
Health 130		2	
Art 111, 121, 122	4	4	4
Art 406, 233	3	2	
Art 240	2		
Art 239 or 340		2	
Business Management 347			5
Elective		2	
Total	15	16	17

Sophomore Year

	Hours		
	A	W	S
Religion	2	2	2
Art 341, 342, 343	2	2	2
Art 250, 321, 586	2	2	2
Art 310, 227, 333	2	2	2
Business Management 315	2		
B.E.O.M. 220		3	
Accounting 101			5
Electives	6	5	3
Total	16	16	16

ENGINEERING TECHNOLOGY**Civil Technician**

The national highway expansion and extension program, local and national interest in building construction, perpetual need for land survey, and many other employment sources have created a demand for civil engineering technologists. They become members of the engineering team to aid the civil engineer in designing, constructing, and maintaining civil engineering projects in all areas. The following curriculum is designed to give the student basic and technical training to make him a needed and an efficient aid to the civil engineer.

Freshman Year

	Hours		
	A	W	S
Religion	2	2	2
English 111, 112, 113	3	3	3
Physical Education	1	1	1
*Mathematics 105, 106, 107	4	4	4
Physics 105, 106, 107	3	3	3
I.E. 102, 113	3	3	
Engr. Tech. 101, 102, 103	3	3	3
Health 130			2
Total	19	19	18

Sophomore Year

	Hours		
	A	W	S
Religion	2	2	2
Engr. Tech. 215, 216	3	3	
Civil Engr. 320 (Surveying)			4
Drawing 246, 354, 380	3	3	3
Engr. Tech. 205, 206, 207	3	3	3
Accounting 101	5		
Sociology 257			3
History 170		5	
Electives	2	2	2
Total	18	18	17

*Third semester high school algebra or Mathematics 101 is a prerequisite for this series.

Construction Technician

This course is designed to prepare the student for technological employment with contractors, civil engineers, architects, and government building agencies. Emphasis will be placed upon construction materials and processes, estimating, surveying, drafting, blueprint reading, frame and masonry construction, and fundamental physics and mathematics.

Freshman Year				Sophomore Year			
	Hours				Hours		
	A	W	S		A	W	S
Religion	4	2	2	Religion	2	0	2
English 111, 112, 113	3	3	3	I.E. 365, 308, 309	2	3	3
Physical Education	1	1	1	I.E. 101	3		
*Mathematics 105, 106, 107 4	4	4	4	I.E. 307, 103	3	3	
Engr. Tech. 101, 102, 103	3	3	3	Drawing 340, 341	3	3	
I. E. 101, 103, 307	3	3	3	Engr. Tech. 215, 216	3	3	
Health 130	2			Engr. Tech. 205, 206, 207	3	3	3
I.E. 401 (Masonry)			2	Accounting 101	5		
	—	—	—	Sociology 257			3
Total	18	18	18	C.E. 320			4
				Total	18	18	18

*Third semester high school algebra or Mathematics 101 is a prerequisite for this series.

Drafting Technician

A drafting technologist is in great demand in all areas of scientific research and engineering development. The following course is designed to prepare the student for employment in industries and laboratories requiring the service of a skilled draftsman and designer of mechanical instruments. The drafting technician gives technical assistance in tool and plant inspection and maintenance and in other areas where his skills are needed.

Freshman Year				Sophomore Year			
	Hours				Hours		
	A	W	S		A	W	S
Religion	2	2	2	Religion	2	2	2
English 111, 112, 113	3	3	3	Physics 105, 106	3	3	
Physical Education	1	1	1	Drawing 246, 204, 248	3	2	3
*Mathematics 105, 106, 107 4	4	4	4	Engr. Tech. 205, 206, 207	3	3	3
Drawing 102, 113, 380	3	3	3	Drawing 382, 401, 444	3		6
I.E. 130			3	Drawing 301		3	
Engr. Tech. 101, 102, 103	3	3	3	I.E. 432		5	
Health 130	2			Accounting 101	5		
	—	—	—	Sociology 257			3
Total	18	19	16	Total	19	18	17

*Third semester high school algebra or Mathematics 101 is a prerequisite for this series.

Electronics Technician

The electronics technician is in great demand in research laboratories throughout the country. He serves the electronics engineer in the installation, maintenance, inspection, and testing of electronics equipment. The following two-year course, including basic mathematics, science, and management, is outlined to give the student competence in electronics technology.

Freshman Year

	Hours		
	A	W	S
Religion	2	2	2
English 111, 112, 113	3	3	3
Physical Education	1	1	1
*Mathematics 105, 106, 107	4	4	4
Physics 105, 106 107	3	3	3
Engr. Tech. 101, 102, 103	3	3	3
Drawing 102, 113	3	3	
Health 130			2
Total	19	19	18

Sophomore Year

	Hours		
	A	W	S
Religion	2	4	
Engr. Tech. 241, 242, 243	5	5	5
Engr. Tech. 261, 262, 263	3	3	3
Engr. Tech. 205, 206, 207	3	3	3
Engr. Tech. 110			3
Accounting 101	5		
Sociology 257			3
E.E. 380		3	
Total	18	18	17

*Third semester high school algebra or Mathematics 101 is a prerequisite for this series.

Metalworking Technician

The purpose of training in metal working is to equip a technician for employment in industry as tool designer and maker, inspector, metallurgical laboratory technician, and production and maintenance supervisor. Processes in metal fabrication and installation, tool and machine design, drawing and blueprint reading are studied and skills in metal and tool usages are developed.

Freshman Year

	Hours		
	A	W	S
Religion	4		2
English 111, 112, 113	3	3	3
Physical Education	1	1	1
*Mathematics 105, 106, 107	4	4	4
Physics 105, 106 107	3	3	3
I.E. 130, 120		3	3
Drawing 102	3		
Health 130			2
Drawing 113		3	
Total	18	17	18

Sophomore Year

	Hours		
	A	W	S
Religion	2	2	2
I.E. 125, 301, 320	3	3	3
I.E. 140, 365, 320	3	2	3
Engr. Tech. 205, 206, 207	3	3	3
I.E. 432, 332		5	3
Chemistry 105, 106	4	4	
Sociology 257			3
Drawing 380	3		
Total	18	19	17

*Third semester high school algebra or Mathematics 101 is a prerequisite for this series.

Engineering Technology**Lower Division Courses**

101. **Engineering Technology.** (3:3:3) A. Spencer
Elementary theory of electricity with emphasis on direct current instruments and phenomena.
102. **Engineering Technology.** (3:3:3) W. Prerequisite: Engr. Tech. 101. Spencer
Continuation of Engr. Tech. 101 with emphasis on alternating-current theory, practice, and instrumentation.
103. **Engineering Technology.** (3:3:3) S. Prerequisite: Engr. Tech. 102. Spencer
Elementary electronic theory, including the application of vacuum tubes in detector, amplifier, oscillator, and rectifier circuits.
110. **Maintenance and Trouble Shooting.** (3:3:3) S. Staff
A study of the proper use and maintenance of electronic equipment, trouble shooting techniques, and the use of electrical measuring and testing devices.

- 205, 206, 207. **Engineering Materials, Equipment and Testing.** (3:3:3) A.W.S. Staff
A survey of the material generally used in erecting structures and machines with special emphasis on their properties and interrelationships.
215. **Statics—Introductory Concepts of Mechanics.** (3:3:3) A. Prerequisites: Physics 107, Mathematics 107, and Engr. Tech. 103. Staff
Force systems and problems of equilibrium, with emphasis on engineering problems covering structures, machines, distributed forces, and friction; including graphic and algebraic solutions.
216. **Dynamics—A Study of the Problems of Moving Systems.** W. Prerequisite: Engr. Tech. 215. Staff
A study of the problems of moving systems with engineering applications in terms of force, mass, acceleration, impulse, and momentum, work and energy, and periodic motion.
241. **Electronics.** (3:3:3) A. Prerequisites: Math 107, Physics 107, and Engr. Tech. 103. Staff
An advanced study of electron tubes and circuits such as resonant circuits, coupled circuits, a-f voltage, and power amplifiers, etc.
242. **Electronics.** (3:3:3) W. Prerequisite: Engr. Tech. 241. Staff
A continuation of Engr. Tech. 241, including voltage and power amplifier operation, power and frequency, determining oscillators, amplitude and frequency modulation, detection, and communications circuits.
243. **Electronics.** (3:3:3) S. Prerequisite: Engr. Tech. 242. Staff
A study of specialized tubes, devices, and circuits for specific applications such as phanatron, thyatron, ignitions, controlled rectifier systems, etc.
261. **Electrical Systems.** (5:5:3) A. Prerequisites: Math 107, Physics 107, and Engr. Tech. 103. Spencer
A study of the fundamentals of direct and alternating current machinery, including controls and associated equipment. A study of the fundamentals of electrical power systems and their component parts.
262. **Electronic Systems.** (5:5:3) W. Prerequisite: Engr. Tech. 261. Spencer
A study of the basic electronic circuits combined to form systems for use in television, radar, and radio engineering.
263. **Electronic Systems.** (5:5:3) S. Prerequisite: Engr. Tech. 262. Spencer
A study of basic electronic circuits applying to industrial systems, photo-electric circuits, timing circuits, power control, welder control, and motor control circuits.

Television

(See courses in Journalism and in Speech and Dramatic Arts.)

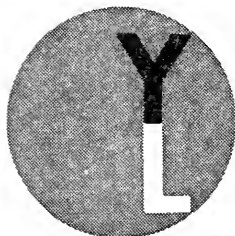
Textiles

(See courses in Clothing and Textiles.)

Theology and Religious Philosophy

(See courses in Religion.)

Youth Leadership



A major in youth leadership is given through the College of Recreation, Physical and Health Education, and Athletics.

Youth Leadership Major

Thirty-five hours of upper division credit in youth leadership courses are required plus the following courses from the College of Recreation, Physical and Health Education, and Athletics: Health Education 121, 130, 311, 325; Physical Education 123, 126, 135, 144, 164, 165; Recreation 301, 537.

Youth Leadership Minor

Twenty-four hours of credit are required for a minor in youth leadership. Courses are required as follows: 311, 312, 372, 373, 374, and other approved courses in allied fields.

Upper Division Courses

301. National Camp School. (1:lecture and lab. for 8 full days and nights) Su. Nat'l Staff
Required of youth leadership majors only. This is a course given by the National Council, Boy Scouts of America.

302. Summer Camp Administration. (1:full summer) Su. Nat'l Staff
Required of youth leadership majors only. Each youth leadership major will be required to serve on a local summer camp council staff for at least one summer camp season.

305, 306, 307. Council Operating Committees and Their Function. (3:3:1 ea.) A.W.S. Stone
Study of how operating committees establish the program and objectives to bring the full scouting program, through district committees and unit leaders, to the boy.

310. History and Development of the National and Local Council. (3:3:0) W. Stone
Divided into two parts: organization of the national council, its function, relation, and service to local councils; and organization of the local council, its functions, relation, and service to sponsoring bodies.

311. Commissioner Service. (3:3:1) A. Taught 1960-61 and alternate years. Stone
Duties and responsibilities of the council, district, assistant district, and neighborhood commissioners. Includes techniques of guiding committee personnel and conducting district roundtable meetings.

- 312. District Operation.** (3:3:0) S. Stone
Designed to teach the student the operations and functions of the district committee.
- 332. Scouting's Sponsors and Public Relations.** (2:2:0) W. Taught 1960-61 and alternate years. Stone
Study of scouting's relationships to its major sponsoring bodies: churches (Protestant, Catholic, Jewish, Church of Jesus Christ of Latter-day Saints), service clubs, fraternal orders, government agencies, schools. Study of the public relations program of the Boy Scouts of America.
- 372. Cub Leadership.** (3:3:1) A. Stone
Designed to teach men how to administer the cub scout program within an institution.
- 373. Boy Scout Leadership.** (3:3:1) W. Home Study also. Stone
Designed to teach men how to use the patrol method to bring scouting to boys 11-14 years of age.
- 374. Explorer Leadership.** (3:3:1) S. Stone
Arranged to bring to students the latest techniques in working with young men 14-17 years of age and bringing them the explorer program (land exploring, sea exploring, and air exploring).
- 375. Program Building.** (3:3:0) Stone
Involves the student in actual unit program planning processes, combined with practical application of principles of program planning in unit situations in the local council.
- 377. Scouting in the L.D.S. Church.** (2:2:1) A.W.S. Stone
Not required for youth leadership major. Designed to acquaint students in church administration with functions and place of cubbing, scouting, and exploring in the Church.
- 390. Field Activity Course.** (1:1:1) W. Taught 1960-61 and alternate years. Stone
Camporee, rally, circus, expositions and cub craft shows are media through which Scouting demonstrates to its public what it is doing with and for youth.
- 391. Conference Planning Techniques.** (2:2:1) S. Taught in 1960-61 and alternate years. Stone
Theory and practice of planning conferences. Various techniques of pre-conference involvement. Laboratory: Explorer Scout Conference and/or Boy Scout Pow-wow on B.Y.U. campus.

Professors: Hayward (chairman 263 B), V.
M. Tanner.

**Associate
Professors:** D E. Beck, W. W. Tanner.

**Assistant
Professors:** A. L. Allen, D. M. Allred, S. L.
Wood.

Instructor: Simmons.

Zoology and Entomology



Zoology is the basic animal science. The courses offered in this department are designed to meet the needs of the students of the university in the following ways:

1. Provide courses suitable to the general education requirements in the biological sciences.
2. Contribute toward the training of prospective teachers in the biological sciences.
3. Provide basic and advanced training for persons wishing to major and attain a bachelor's or master's degree in zoology.
4. Offer service courses for the benefit of the students majoring in other departments who need supporting work in the zoological sciences.
5. Furnish courses required in pre-professional work toward medicine, dentistry, and other medical sciences.

Requirements for a Major

It is desirable that students select a major at the earliest possible date in their college program. A candidate for a bachelor's degree who elects to major in the Department of Zoology and Entomology will be assigned an adviser who will assist him in the organization of his entire program. The course of study must include (1) the general education requirements of the university, (2) the general departmental requirements, and (3) one of the optional sequences in zoology depending upon his special interests. Any modification of these requirements must be approved by the chairman of the department.

The general departmental requirements for all majors in zoology include courses 105, 176 or 376, 212, 213, 385, 496, 497, and 498. Prospective majors who have completed a full year of biology in high school may omit Zoology 105 provided they pass an examination in general principles of zoology, administered by the department.

Optional Sequences

Natural History: This option is intended for students who plan advanced training in such fields as ecology, geographical distribution, mammalogy, ornithology, herpetology, ichthyology, invertebrate zoology, or systematics. Such training may lead to careers in the National Park Service, Fish and Wildlife Service, game management, museum services, biological surveys, and fresh water or marine biology. Courses recommended for this sequence are 230, 321 or 332, 343 or 345, 346 or 347, 365, 372, 550, and supporting courses in botany, the physical sciences, and mathematics.

Anatomy and Experimental Zoology: This division is designed for students who plan advanced training in such fields as comparative anatomy, histology, physi-

ology, genetics, radiation biology, and embryology. This training may lead toward university teaching and research, industrial or governmental research, nutrition and dietetics, occupational and physical therapy, or hospital administration and technical services. The following courses are recommended: 230 or 417, 363, 365, 370, 371, 373, and 573 or 578. Supporting courses in bacteriology, botany, chemistry, physics, and mathematics should also be taken.

Parasitology and Epidemiology: This option is designed for students who plan to work in such fields as helminthology, medical arthropodology, and protozoology. This training may be applied to public health services, institutional research and private practice. The following courses are recommended: 230, 321, 330, 332, 333, 346, 347, 365, 371 or 372, 417, 550. Supporting courses should be selected in bacteriology, botany, chemistry, physics, and mathematics.

Entomology: A variety of career opportunities in both pure and applied phases of entomology are available to qualified persons. Teaching and research positions in educational, industrial, and governmental organizations, and numerous positions as technicians in museums, quarantine inspection, insect control, and other special services are examples of available opportunities. Recommended courses for this option are as follows: 230, 321, 330, 332, 333 or 334, 371 or 372, 365, 550. Supporting courses in bacteriology, botany, chemistry, and mathematics should also be taken.

Teaching: The preparation of teachers of biology in secondary schools is a cooperative program between the departments dealing with the biological sciences and the College of Education. Prospective biology teachers should complete either a zoology major and botany minor, or a botany major and zoology minor. The general departmental requirements are included in the 44-hour major list.

Forty-four hour (major) list: 105, 176 or 376 (or Botany 145), 212, 213, 230, 343 or 345, 346 or 347, 372, 385, 164 or 365 (or Botany 410), 550 (or Botany 430), and at least one quarter of zoology seminar. If Botany 410 and Botany 430 are taken in the minor the student must take 10 additional hours in Zoology to be selected in consultation with the chairman of the department.

Twenty-four hour (minor) list: 105, 164, 176, 230, 372, 385, and at least 2 hours of electives.

Pre-medical and pre-dental students may take any of the optional sequences.

Suggestions for a Minor

A minor in Zoology and Entomology should include at least the following courses: 105, 176, 212, 213, and 230.

Graduate Program

The Department of Zoology and Entomology offers the Master of Science and Master of Arts degrees. For details of requirements for these degrees see the Graduate Catalog.

Lower Division Courses

- 105. General Zoology.** (5:3:4) A.W.S. (G-BS) Staff
An introduction to the basic principles of biology with special emphasis on the morphological, anatomical, physiological, and ecological relationships of man and other animals.
- 109. Human Physiology for Nurses.** (5:3:4) S. (G-BS) Staff
Open only to students of nursing and physical therapy. It is to be followed by course 261.
- 164. Human Anatomy and Physiology.** (5:3:4) A.W.S. (G-BS) Staff
Prerequisites: Zoology 105 (recommended), or Botany 101 or Bacteriology 121.
Not open to pre-medical students.

- 176. Survey Course in Heredity.** (3:3:0) A.W.S. (G-BS) Prerequisites: Zoology 105 or Botany 101 or equivalent. Staff
Designed for students not majoring in biological science. Zoology majors should take course 376.
- 212. Invertebrate Zoology.** (5:2:6) A.W.S. Prerequisite: Zoology 105 or equivalent. Beck
A basic course in the invertebrates designed to meet the needs of biology majors, pre-medical and pre-dental students.
- 213. Vertebrate Zoology.** (5:3:4) A.W.S. Prerequisite: Zoology 105 or equivalent. Hayward, W. W. Tanner
A basic course in the vertebrates designed to meet the needs of biology majors, pre-medical and pre-dental students.
- 230. Introductory Entomology.** (5:3:4) A.S. (G-BS) V. M. Tanner
The beginning course in the structure, classification, and life histories of insects and their allies.
- 261. Human Anatomy for Nurses.** (4:2:4) S. Prerequisite: Zoology 109 or consent of instructor. Staff

Upper Division Courses

- 310. Natural History of Insects.** (3:2:2) A. Prerequisite: Botany 101 or Zoology 105. Beck
A course designed for non-biology majors and dealing with insects, spiders, and related animals of importance to man.
- 315. Natural History of Vertebrates.** (3:2:2) S. (G-BS) Prerequisite: Botany 101 or Zoology 105. Hayward
A course designed for non-biology majors and dealing with common vertebrates, especially birds and mammals.
- 321. Arthropodology.** (3:0:6) A. Prerequisite: Zoology 230. Allred
Natural history, comparative morphology, and identification of local arthropods other than insects.
- 330. Insect Morphology.** (5:2:6) W. Prerequisite: Zoology 230. Wood
- 332. Insect Classification.** (5:2:6) S. Prerequisite: Zoology 230. Wood
- 333. Medical Entomology.** (4:2:4) S. Prerequisite: Zoology 321 and 332. Allred
Study of arthropods that attack man and his domestic animals and that transmit pathogenic organisms and other parasites.
- 334. Economic Entomology.** (3:2:2) A. Prerequisite: Zoology 230. Wood
Life histories and control of insect pests, exclusive of medically important forms.
- 343. Fishes (Ichthyology).** (3:1:4) W. Prerequisite: Zoology 213. V. M. Tanner
- 345. Reptiles (Herpetology).** (3:1:4) S. Prerequisite: Zoology 213. W. W. Tanner
- 346. Birds (Ornithology).** (3:1:4) S. Prerequisite: Zoology 213. Hayward
- 347. Mammals (Mammalogy).** (3:1:4) A. Prerequisite: Zoology 213. Hayward
- 357. Natural and Human Resources.** (3:3:0) W. (G-BS) V. M. Tanner
- 363. Comparative Vertebrate Anatomy.** (5:3:4) A. Prerequisite: Zoology 213. W. W. Tanner
- 365. General Physiology.** (5:3:4) W. Prerequisites: Zoology 105, Chemistry 112. Staff
- 370. Vertebrate Histology.** (3:1:4) W. Prerequisite: Zoology 213. Hayward

371. **Histological Technique.** (2:0:4) A. Hayward
372. **Biological Techniques.** (2:0:4) S. Staff
Designed to help prospective teachers and biologists in the techniques of preparing biological objects and materials for demonstration or study.
373. **Vertebrate Embryology.** (5:3:6) S. Prerequisite: Zoology 213. Allen
376. **Genetics.** (5:4:2) A. Prerequisite: Zoology 105 or Botany 101. Allen
An introductory course designed for majors in biological sciences.
385. **History of Biology.** (2:2:0) W. Home Study also. Prerequisite: Zoology 105 or Botany 101. V. M. Tanner
417. **Parasitology.** (4:2:4) W. Allred, Tanner
A study of animals that are internal parasites of man and his domestic animals.
- 496, 497, 498. **Senior Year Seminar.** (1:1:0) A.W.S. Staff

Advanced Undergraduate or Graduate Courses

510. **Zoological Literature.** (3:3:0) A. Wood
Designed to acquaint the student with the literature of zoology for research and thesis writing.
512. **Local Invertebrates Excluding Insects.** (3:1:4) S. Prerequisites: Zoology 321 and 332. Beck
524. **Acarology.** (3:0:6) W. Prerequisite: Zoology 321. Allred
533. **Field Entomology.** (3:1:4) S. Prerequisite: consent of instructor. Beck, Wood
538. **Immature Insects.** (3:1:4) A.S. Prerequisite: Zoology 332. V. M. Tanner, Wood
540. **Aquatic Zoology.** (3:2:2) S. Prerequisite: consent of instructor. Staff
550. **Principles of Ecology.** (5:3:4) S. Prerequisites: Zoology 212, 213, 230; Botany 123. Hayward
Saturday field trips.
551. **Biotic Communities of North America.** (3:3:0) W. Prerequisites: Zoology 550 or Botany 430. Hayward
573. **Experimental Embryology.** (4:2:4) S. Prerequisite: Zoology 373. Allen
Concepts and techniques related to normal development and its modifications.
576. **Advanced Genetics.** (3:3:0) W. Prerequisite: Zoology 376. Allen
A review of modern concepts of genetic mechanisms.
578. **Radiation Biology.** (3:2:2) W. Prerequisites: Physics 113; Chemistry 112; Zoology 365. Allen
Elementary theory of radiations, interaction with matter, biological effects, and health physics.
579. **Radiation Biology Laboratory.** (2:0:4) W. Prerequisite: concurrent enrollment in Zoology 578. Allen
591. **Special Problems in Zoology.** (1-3:Arr.:Arr.) A.W.S. Staff
Open to students prepared to do advanced independent work in zoology.

Graduate Courses

610. **Systematic Zoology.** (3:2:2) W. V. M. Tanner
Principles of taxonomy, morphology, nomenclature, genetics, ecology, and distribution as they affect animal populations in nature.

625. **Distributional Study of Parasitic Arthropods.** (3:0:6) A.W.S. Beck, Allred
628. **Advanced Medical Arthropodology.** (3:1:4) A.S. Beck, Allred
630. **Internal Morphology of Insects.** (3:1:4) S. Wood
631. **Insect Physiology.** (3:2:2) A. V. M. Tanner
637. **Insect Genitalia.** (3:1:4) W. V. M. Tanner
639. **History of Entomology.** (2:2:0) W. V. M. Tanner
643. **Advanced Ichthyology.** (3:1:4) A.W.S. V. M. Tanner
645. **Advanced Herpetology.** (3:1:4) S. Prerequisite: Zoology 345. W. W. Tanner
Anatomy, life history and taxonomy are emphasized.
655. **Principles of Zoogeography.** (2:2:0) A. V. M. Tanner
661. **Cellular Physiology.** (3:3:0) A. Staff
662. **Physiology of Secretion and Absorption.** (3:3:0) W. Staff
663. **Physiology of Muscles and Nerves...** (3:3:0) S. Staff
673. **Advanced Embryology.** (3:3:0) A. Allen
A review of modern concepts of mechanisms of development.
- 690, 691, 692. **Research.** (2:0:4 ea.) A.W.S. Staff
- 696, 697. **Graduate Seminar.** (1:1:0 ea.) A.W. Staff
699. **Thesis for Master's Degree.** (Arr.) Arr. Staff

Adult Education and Extension Services

President of the University: Ernest L. Wilkinson

Extension Representative in the Administrative Council: Harvey L. Taylor

Dean: Harold Glen Clark

Council: Harold Glen Clark (chairman, 220 SSC), L. Bernice Chapman, Earl C. Crockett, Gerrit de Jong, Jr., Wayne B. Hales, Merrill J. Hallam, Milton F. Hartvigsen, Armin J. Hill, A. Smith Pond, Leonard Rice, Antone K. Romney, Harvey L. Taylor, Weldon J. Taylor, Jack B. Trunnell, Asahel D. Woodruff, David H. Yarn.

This council is an advisory body for the Extension Services of the university.

SERVICES AND STAFF

On-Campus Instruction, Chairman	Sherman B. Sheffield
Evening School, Supervisor	Ilene Webb
Special Courses and Institutes, Supervisor	Richard Hirtzel
Leadership Week Supervisor	Sharon Moser
Off-Campus Instruction, Chairman	Richard H. Henstrom
Off-Campus Credit, Supervisor	D. Chris Poulos
Lectures and Short Courses, Supervisor	David H. Chalk
Extension Publications, Supervisor	Loree Brown
Home Study, Chairman	Lula Clegg
Travel Studies, Chairman	Jay B. Hunt
BYU-Ricks Adult Education Center, Chairman	J. Kenneth Thatcher
Assistant to the Chairman	Seth Bills
BYU-Ogden Adult Education Center, Chairman	George S. Haslam
BYU-Salt Lake Adult Education Center, Chairman	Lynn M. Hilton
Audio-Visual Services, Acting Chairman	Evan J. Memmott
Assistant to Acting Chairman	Andrew Jones
Campus Services, Supervisor	Henry D. Lister
Film Service, Supervisor	Afton Porter
Equipment, Supervisor	Parley Rasmussen
Graphic Arts, Supervisor	Douglas Johnson
Off-Campus Distribution, Supervisor	Paul Smith
Publications, Supervisor	Weston N. Nordgren
Recording and Public Address, Supervisor	Francis Boyer

HISTORY AND PURPOSE

The purpose of the Extension Services is to bring the educational services of the regular university day school to those who are not now receiving them. It was called the Extension Division when it was established in 1921. At that time its program combined publicity, off-campus programs, lectures, and community services with the more formal classroom offerings and credit courses both by correspondence and lecture.

Some of these earlier functions have been assumed, in part, by special committees or departments in the university. New services, such as motion pictures

and audio-visual aids, have been expanded or added to the Extension Services. Full-time employees have replaced those who formerly did extension work during their off-time hours. The extent of the territory served has increased. Bulletins of information on evening school courses, home study subjects, lectures, and publications are available upon request.

Many teachers of the courses scheduled through the Extension Services are chosen from the regular BYU faculty. In addition, a special part-time off-campus faculty is available and is listed in the Special Instructors or Lecturers Section of this catalog.

BYU ADULT EDUCATION CENTERS

Sensing the obligation of the Church university to provide educational opportunities in harmony with L.D.S. standards for persons away from Provo, the Board of Trustees has established adult education centers. These centers offer the same service of adult education to the people of the center's area as that offered to people who live near Brigham Young University. The credit earned through classes at these centers may be accepted toward a bachelor's or master's degree. However, the student must do at least 45 hours of work on the bachelor's degree and 30 hours of work on the master's degree on the Provo campus.

B.Y.U.-Ricks Adult Education Center. The first center to be established was at Rexburg, Idaho, in July of 1956. The center is housed at Ricks College and provides off-campus courses, evening school, summer school, leadership week, and special programs. Audio-visual materials and publications are also available. The center has shown a steady growth. In the fall of 1958, over 500 students were taking evening classes. In Winter Quarter of 1959 this center moved to Idaho Falls, maintaining a sub-center in Rexburg, Idaho. The services of the Ricks Center have stretched as far as Nampa, Idaho, on the west and Afton, Wyoming, on the east to offer short courses and credit classes.

BYU-Ogden Adult Education Center. To provide the people in and near Ogden with some of the advantages enjoyed by those living close to the Brigham Young University campus, the Church Board of Education on April 18, 1957, authorized the university to utilize the former Institute building at 555-24th Street as an adult education center. The center was officially opened August 10, 1957, offering academic courses in upper division and graduate work and informal courses, lectures, programs, and a leadership week.

The center draws its faculty from B.Y.U. and from professionally qualified persons living in the Ogden area. Local instructors are approved by the B.Y.U. administration in the same manner used in employing regular full-time faculty members.

BYU-Salt Lake Adult Education Center. Effective January 1, 1959, the building occupied formerly by the McCune School of Music and Art, 200 North Main, was opened as the third B.Y.U. adult Education center. Its program will follow the pattern established in the other centers. Courses and programs will be offered in religion, genealogy, speech, history, recreation, writing, art, education, and other fields. Special programs will be organized for industry, commerce, and church groups where requested. Full information may be obtained by phoning Salt Lake City DA 2-1802.

AUDIO-VISUAL CENTER SERVICES

The Brigham Young University Audio-Visual Center is one of the largest and most complete teaching materials centers in the nation. Its purpose is to serve the departments of the university, the various Church organizations, the public schools, and industry with the finest materials for instruction that can be obtained.

To provide more efficient and effective service the Audio-Visual Center has departmentalized its various functions into the following areas: film rental

library, equipment rentals and services, tape recordings and public address, on-campus film classics program, and teaching materials production (graphic arts).

The Department of Teaching Materials Production has two areas of service: (1) campus work, which includes layout and illustration (art and photography) for any type of publication as well as the production of custom instructional materials for on-campus use, and (2) production of instructional material for use of Churches and schools.

In addition, the Audio-Visual Center offers comprehensive use of audio-visual materials on a contractual basis to schools, based on the schools' average daily attendance.

The center also operates a growing film rental library containing 16 mm sound motion pictures, 35 mm filmstrips and 2" x 2" color slides. The motion pictures, filmstrips and slides cover a wide variety of both educational and religious subjects. B.Y.U. Motion Picture Production Department releases are among those films available here.

A magnetic tape recording library of more than 2,000 titles is maintained. This includes such items as addresses given at the General Conferences of the Church of Jesus Christ of Latter-day Saints, B.Y.U. devotional assembly talks, and other important speeches given on campus. In addition, taped radio programs of an educational nature are available on a rental basis, or tapes may be duplicated for sale.

The Audio-Visual Center offers a consultation service, extension courses and workshops on a non-credit basis, and classes and workshops for credit in cooperation with the College of Education and the Adult Education and Extension Services. The services include courses for graduate students in the preparation of instructional classroom materials. Research projects in the use of such materials also are conducted here.

Further information may be had by writing or calling the Audio-Visual Center. A catalog and supplementary bulletins listing materials available, conditions of service, and rental rates will be sent on request.

ON-CAMPUS ADULT EDUCATION

All on-campus courses of instruction administered through the Adult Education and Extension Services are conducted through the On-Campus Adult Education Division. Departments of the division are the Evening School, Special Courses and Institutes, and Leadership Week. Both credit and non-credit offerings are available. Flexibility of programming is maintained to meet specific needs of adults and special groups. Business, industrial, civic, social, church, and educational institutions are encouraged to contact this office if they desire special adult instruction.

Evening School. On week-day evenings, classes are conducted on campus in subject matter areas of interest to adults who desire to improve or enrich their lives through part-time education.

Regular college residence credit equivalent to daytime classes is given for all evening school classes. Anyone wishing to do so may take a class on a non-credit basis as an auditor.

Veterans are eligible to enroll under the G.I. Bill if they meet the eligibility requirements of the Veterans' Administration.

There is published quarterly a class schedule of all classes offered on the campus, including early morning, late afternoon, and evening classes. These class schedules, giving detailed information about all procedures, are available free of charge in the office of the Evening School. Courses listed in the Evening School schedule which do not receive eight or more registrations will be cancelled. Students who have registered in cancelled classes will be notified and

invited to join classes in which there are a sufficient number of students or will be given a full refund.

At scheduled times during each registration period, trained counselors are available in the office of the Extension Services to Evening School students. If the student wishes, he may secure professional help in making educational and vocational plans or in working through related personal problems. A person wishing to confer with a counselor at a time not regularly scheduled may arrange for an appointment. There is no charge or obligation to the student for these services.

Day students may enroll in Evening School classes on their regular registration card by picking up class cards marked "Section 90." An extra fee of \$2.00 per credit hour is charged for these classes.

Students taking only evening classes register at the Extension Services Office. The fee for such students is \$6.00 per credit hour plus a \$1.00 registration fee. Students enrolled for ten or more hours in Evening School may purchase activity cards and health services for an additional \$15.00.

Students who register after the officially scheduled registration days are required to pay a late registration fee of \$2.00. Registration is not complete until all fees are paid. (Veterans are required to pay the late fee personally.) One dollar is charged for each change slip presented after the first week of the quarter unless the action is caused by the Evening School.

Each student registered through the Extension Services who discontinues attendance at class must use the proper procedure to withdraw by coming to the Extension Center. Otherwise, the student will be given an "Incomplete" mark for the course. The mark will be changed to "Failure" if not removed by the next quarter in residence or in one year, whichever is the sooner.

A pro-rated refund of tuition fees will be made to those who withdraw properly from evening classes during the first four weeks of the quarter. There is no refund for withdrawals occurring after the fourth week of the quarter.

Time and place of Evening School registration are listed in the general school calendar in the front of this catalog. Students registering for only evening classes register until 9:00 p.m. on the same dates at the Extension Services Office.

Courses are available through Evening School in the following departments:

Accounting	Geology
Art	History
Bacteriology	Horticulture
Bible and Modern Scripture	Human Development and Family Relationships
Botany	Industrial Education
Business Education and Office Management	Instruction
Business Management	Languages
Chemical Engineering Science	L.D.S. Church Organization and Administration
Chemistry	Mathematics
Church History	Mechanical Engineering Science
Civil Engineering Science	Physical Education (Men)
Clothing and Textiles	Physical Education (Women)
Economics	Physics
Educational Administration	Political Science
Educational Philosophy and Programs	Psychology
Educational Research and Services	Sociology
English	Theology and Philosophy
Food and Nutrition	Zoology and Entomology
Geography	

Special Courses and Institutes. The Special Courses and Institutes Department is organized to meet the academic needs and desires of many different age and educational background groups. It provides flexible and varied credit and non-credit programs at the Brigham Young University campus and offers courses appealing either to specific interest groups or to the public at large. It also offers lecture series, institutes, departmental conferences, seminars, workshop forums, and special programs from many fields such as fine arts, religion, humanities, physical sciences, commerce, industrial education and athletics.

This department attempts to reach those who seek stimulation and training for personal satisfaction or for professional advancement. Offerings, presented on a high academic level, are extremely informative in nature, yet informal and flexible as to content and presentation. Courses are generally six to ten weeks in length (one and one-half hours per week) although length and time may vary with each program.

The instructional staff for the Special Courses and Institutes Department is composed of members of the regular B.Y.U. faculty and other professional and academic specialists. Tuition fees are charged in accordance with the length of the course or institute or with special expenses which may be involved. Although advance registration is advisable through the Extension Services office, one may register at the first class meeting.

Persons representing groups which desire special courses or lectures on the B.Y.U. campus may have such courses initiated by contacting this department.

Following are some of the programs presented by the Special Courses and Institutes Department:

Acts of the Apostles	Know Your Religion
Adult Education Workshop	Late Summer Extension Program
America's Literature	Management Conference
Art of Conversation	Medical Receptionists Institute
Athletic Clinic	Missionary Approach to the Gospel
Body Mechanics and Physical	Personal Investments
Reconditioning for Women	Reading Better and Faster
Boy Scout Pow-wow	Real Estate Principles and Practices
Children's Rhythms	Speed Methods in Sewing
Evening Lectures on Religion	Survival Training Instruction
Flower Show Judging Institute	Techniques of Dictation
Fun with Photography	The Ward Librarian
The Fascinating Search—Genealogy	You and Your Child
Juvenile Delinquency Institute	

Leadership Week. For thirty-six years, adults from all walks of life have spent their vacations attending the five-day festival of learning at the Brigham Young University. In order to stimulate people's interest, all of the colleges of the university, through their faculties and off-campus consultants, endeavor to provide selected educational experiences which will help members of the Church and other patrons of the university to become better leaders in the professions, the home, the community, and the Church. A few of the areas of instruction are these: human relations, scientific advancements, the world of business, better teaching methods, music, drama and speech activities, teen-age problems, and handicraft arts. Instruction in genealogy, the scriptures, and lectures from the General Authorities and others also add greatly to the interest and value of Leadership Week. Special artistic presentations enhance the offering of this week. A special Youth Leadership Week will be included for a second year. All youth, 12 to 17 years of age, are invited.

OFF-CAMPUS ADULT EDUCATION

The Off-Campus Instruction Division of the Adult Education and Extension Services has six departments: Off-Campus Credit, Lectures and Short Courses (non-credit courses and lectures taught off campus), Publications, Telecourses,

Discussion Groups, and Off-Campus Leadership Weeks. Descriptions of these departments are listed below. More detailed information and catalogs may be obtained by writing Off-Campus Instruction, Adult Education and Extension Services, Brigham Young University, Provo, Utah.

Off-Campus Credit. Many adult groups off-campus make requests for regular credit or non-credit courses to be offered in their locality. A request of this type is filled by scheduling a university teacher to travel to the selected place and conduct the course. Credit courses give regular Brigham Young University credit and may be used to renew a teaching certificate, to apply toward a degree, or to broaden one's intellectual and spiritual horizons. The minimum number of students required for a class is determined by the distance of the class from the campus.

Brigham Young University credit is available to students in off-campus courses sponsored by the University of Utah or Utah State University where the course has the prior approval of the Brigham Young University Extension Services chairman and dean involved. Conversely, courses sponsored by the B.Y.U. Extension Services will register University of Utah and Utah State University students where these other institutions approve.

Requests for courses should be directed to Off-Campus Courses, Extension Services, Brigham Young University. Ordinarily such classes meet one evening a week for eleven weeks. A wide choice of courses is available. Courses listed in the body of this catalog, subject to the approval of the dean and department chairman concerned, may be scheduled off campus. The usual tuition is \$7.50 per credit hour. If the class is far distant from campus, students may vote to increase their own tuition in order to have a lower minimum number of students.

A special series of courses in Genealogy is offered in Salt Lake City. It is felt that this offering is greatly enhanced by the ready access to the Genealogy Library in Salt Lake. These courses offer 4 credit hours each. For detailed information check listing under L.D.S. Church Organization and Administration in this catalog.

Following are examples of classes that have been offered through the Off-Campus Credit Program: Economics 593, Seminar. Instruction 226, Art for Elementary Teachers; 605, Audio-Visual Materials and Procedures; 614, Analysis of In-Service Problems; 624, Arts and Crafts for Elementary Teachers; 635, Social Studies in the Elementary Schools; 693, Independent Readings. Educational Research and Services 510, Tests and Measures for the Classroom Teacher; 630, The Teaching of Remedial Reading; 650, Guidance Workshop. English 318, Advanced Imaginative Writing; 561, Early American Literature. Geography 310, Geography of North America. Geology 503, Geology of Utah. Health 501, Health Education Workshop. History 170, American Heritage. Physical Education 310, Physical Education for Teachers of Intermediate Grades. Physics 301, History of Physics. Political Science 320, Contemporary Problems. Scripture 511, Israel's Prophets. Speech 680, Seminar in Study of Speech Handicapped Children.

Lectures and Short Courses. The Lectures and Short Courses Department of the Adult Education and Extension Services was created to present non-credit programs off-campus—lecture series, institutes, classes appealing to particular interest groups, conferences, forums, and special promotions. The varied curriculum includes programs in religion, the fine arts, engineering, athletics, and many specialized fields. This department attempts to reach persons who seek stimulation and training in special areas for personal satisfaction or professional advancement with instruction on an academic basis. Courses, institutes, and lectures are presented each year in most of the western states.

Since this department is on a non-credit basis, its program need not be concerned specifically with filling requirements, but may be geared to the special needs and desires of the group. Presentations are informative and informal, but of high academic quality. Courses are generally eight to ten weeks in length,

one or one and one-half hours per night, one night a week. All programs are led by specialists prominent in their field. Many instructors and speakers are drawn from the wealth of leadership at Brigham Young University.

The registration fee covers expenses such as modest honorariums for the lecturers, publicity, administration, and travel and supplies. Persons desiring courses or lectures to be presented in their locale may initiate them by contacting this office.

Following are examples of programs presented by the Lectures and Short Courses Department:

Speech	The Art of Storytelling
Amateur Radio Operation	Flower Decoration
Insurance: Life and Property	Model You
Professional Courses as Requested	Missionary Approach to the Gospel
Audio-Visual Aids Classes	Reading Better and Faster
Counseling Workshop	Genealogy, the Fascinating Search
Writing Workshop	Secretarial Workshop
Directing the Play	Medical Receptionist
Doctrine and Covenants	Special Lecture Series
Family Solidarity	The Book of Mormon Testifies
Fun with Photography	The Story of the Pearl of Great Price
Home Planning and Construction	Utah History
Interior Decorating	Professional Lectures
Baton Techniques	

Extension Publications. Devotional assembly speeches, as well as many lecture series, are reproduced in mimeograph form by the Extension Publications Department. These are sold at cost. At the end of each school year, complete bound sets of the assembly speeches may be purchased. These are particularly useful in ward and home religious libraries.

Following are listings of inspirational publications:

Speeches of the Year: Among those who spoke during the past year and whose speeches are available in mimeograph form are Presidents David O. McKay and J. Reuben Clark, Jr.; Elders Joseph Fielding Smith, Harold B. Lee, Mark E. Petersen, Delbert L. Stapley, Marion G. Romney, LeGrand Richards, Richard L. Evans, George Q. Morris, Hugh B. Brown, Alma Sonne, ElRay L. Christensen, John Longden, Sterling W. Sill, Gordon Hinckley, Antoine R. Ivins, and Milton R. Hunter; Bishops Joseph L. Wirthlin and Carl W. Buehner; and President Ernest L. Wilkinson.

An Apostle Speaks to Youth: Printed booklets containing addresses of General Authorities: "A Style of Our Own," Elder Spencer W. Kimball; "Chastity," Elder Mark E. Petersen; "Be Ye Clean," Elder Spencer W. Kimball; "Building Your Marriage to Last Forever," Elder LeGrand Richards; "Tragedy or Destiny," Elder Spencer W. Kimball.

Lecture Series: Each publication contains lectures on various religious subjects. Among those available are "The Trial of the Stick of Joseph," "Eden to Egypt," "Life of the Master," "Doctrine and Covenants Highlights" and "Doctrines of the Pearl of Great Price."

Leadership Week Lectures: New publications available from Leadership Week, 1958: "Things to Come," Rodney Turner; "Remarkable Story of Revelation in the Doctrine and Covenants," Ivan J. Barrett; "Glorious Future of Man from Science and Scripture," James R. Clark; "Articles of Faith," G. Byron Done; "The Jews, A Promised People," Lynn M. Hilton; "Those Who Would be Leaders," Russell Rich; "Joseph's Scattered Flocks," Hope A. Hilton; "Prophets and Problems of the Pearl of Great Price," James R. Clark; "Doctrinal Themes of the Doctrine and Covenants," Hyrum L. Andrus; "Our

Standard Works," various speakers; "Our Prophets, Old and New," various speakers; and "Sparkling Family Night and Supplement," Monroe and Shirley Paxman.

Extension Publications Book: Our Leaders Speak, is a book, arranged by subject, which provides a wonderful reference for teachers, missionaries, members of the Church, and former students of the Brigham Young University. It is a collection of select excerpts from the addresses of devotional speakers at the university and contains some of the most beautiful and inspiring testimonies of the Gospel available in our day.

Teachers in Sunday School classes and other church auxiliaries, missionaries, speakers, and students of the scriptures find these publications stimulating because of the timely stories, interpretations of current events, and faith-promoting experiences presented to the student body of the university.

For full details about these and other available publications and prices, write to Extension Publications, Adult Education and Extension Services, Brigham Young University, Provo, Utah.

Telecourses. The Brigham Young University is entering the field of educational television. The school has sponsored several courses over educational and commercial television facilities. It is hoped that the general public will indicate their interest in B.Y.U. Telecourses for credit and non-credit. Further information is available upon request.

Discussion Groups. Materials for various discussion groups are available for a nominal fee. Discussion leaders and organizational helps are available for clubs and other organizations. Subjects include: Ways of Mankind, World Politics, Introduction to the Humanities, Economic Reasoning, You and Your Community, Parenthood in a Free Nation, Discovering Modern Poetry, Looking at Modern Painting, Aging in the Modern World, Great Books, American Foreign Policy, and others.

Off-Campus Leadership Weeks. The Leadership Week held annually on the Brigham Young University campus has gained a nationwide reputation. As the university expands its services, there is the possibility that numerous Leadership Weeks may be held in various areas where Church population is sufficient to support this undertaking. It is hoped that Brigham Young University's Leadership Week will become an annual affair in numerous communities throughout the country. The Southern California area of the Church was host to a B.Y.U. Leadership Week during August, 1958, and Salt River Valley stakes in Arizona in December 1958.

TRAVEL STUDIES

B.Y.U. Travel-Study Tours are designed for people from seventeen to seventy years of age (seventeen to thirty-six for "student tours") who wish to increase their knowledge and understanding of their own nation and of other lands and peoples through purposeful, educational travel. Membership for most tours is not limited to B.Y.U. students or former students—anyone within the specified age limits who is willing to adhere to the standards of the Church of Jesus Christ of Latter-day Saints may file application for membership.

All of the Brigham Young University travel-study tours are non-commercial, non-profit, educational projects. They are sponsored by a university which recognizes the value of organized educational travel experience and senses the importance of broadening cultural horizons and promoting international understanding and good will.

Opportunities are provided for Brigham Young University travel-study groups to meet Latter-day Saint mission presidents, missionaries, and members of the Church of Jesus Christ of Latter-day Saints who reside in the distant missions of the Church.

College credit is available to tour participants who complete the study program as outlined by the academic department which co-sponsors the travel-study tour.

B.Y.U. 1959 Travel-Study Tours

Europe

1. Student Tour of Europe—North (ages 17-36). June 16-August 21
Directors: Dr. Vernon Anderson, Language Department; and Dr. Melvin Mabey, Political Science Department.
Credit: 3-9 upper-division hours in German, French, or Italian civilization or European history.
2. Student Tour of Europe—South (ages 17-36). June 25-August 26
Director: Dr. Preston Gledhill, Speech and Dramatic Arts Department.
Credit: 3-9 upper-division hours in drama or European history.
3. Comparative Education Tour of Europe. June 29-August 21
Directors: Dr. Sterling Callahan and Dr. Stephen Alley, College of Education.
Credit: 3-9 upper-division hours in education.
4. Peoples and Cultures Tour of Europe. June 25-August 21
Director: Dr. John R. Halliday, Music Department.
Credit: 3-9 upper-division hours in music appreciation or European history.
5. Short Student Tour of Europe (ages 17-36). July 26-August 23
Directors: Dr. R. Max Rogers, Language Department; and Dr. Leonard Rice, English Department.
Credit: 3 upper-division hours in German, French, or Italian civilization; English literature; or European history.
6. Short Adult Study Tour of Europe—North. July 26-August 23
Director: Prof. Gustive Larson, Church History and History Departments.
Credit: 3 upper-division hours in European history.
7. Short Adult Study Tour of Europe—South. July 26-August 23
Director: Dr. Wilford Smith, Sociology Department.
Credit: 3 upper-division hours in sociology or European history.

North America and Hawaii

8. Socio-Cultural Tour of the Hawaiian Islands. July 16-August 1
Directors: Dr. Richard L. Gunn, Art Department; and Dr. Jay B. Hunt, History Department.
Credit: 4 upper-division hours in art or contemporary political problems.
9. Ninth Annual Church History Tour—By Air. August 1-August 8
Directors: Prof. Ivan J. Barrett, College of Religious Instruction; and Dr. Lynn M. Hilton, Extension Services.
Credit: 2 upper-division hours in Church history.
10. Geography Tour of Western America. June 8-June 28
Directors: Prof. Elliott Tuttle, Geography Department; and Prof. Kenneth Davies, Economics Department.
Credit: 3 upper-division hours in geography or economics.

Latin America

11. Mexican Holiday Study Tour. December 26-January 4
Director: Dr. Darrel Taylor, Language Department.
Credit: 2 upper-division hours in Spanish language or Mexican civilization.
12. Book-of-Mormon Lands Study Tour — Caribbean Extension. July 17-August 5
Director: Dr. Darrel Taylor, Language Department.
Credit: 3 upper-division hours in Spanish language or Mexican civilization.
13. Mexico Travel-Study Tour. July 26-August 16
Directors: Dr. Carl Gibson, Language Department; and Dr. Gaylon Caldwell, Political Science Department.
Credit: 3 upper-division hours in Spanish language or Mexican civilization.

Travel-Study Programs

14. Mexico Study Program. June 16-August 5
Directors: Dr. Ernest Wilkins, Language Department; and Dr. De Lamar Jensen, History Department.
Credit: Up to 10 hours of beginning, intermediate, or advanced Spanish and/or Mexican history and government.
15. French Study Program at Quebec. June 26-August 12
Director: Prof. J. Reuben Clark, III, Language Department.
Credit: 12 hours in French language and literature, half of which may be obtained in cooperation with the University of LaVal, Quebec.
16. Study in Hawaii. June 21, July 26
Director: Dr. Richard L. Gunn, Art Department.
Credit: Up to 10 upper- and lower-division hours in art or courses taken at the University of Hawaii.

HOME STUDY

Adult Education and Extension Services offers Home Study courses to aid in widening the educational horizons of the many people who cannot take college work in residence.

Home Study is education by mail—instruction with a personal touch. Recent scientific studies report that Home Study students do at least as well as classroom students in assimilating knowledge. Home Study develops in a marked degree the student's initiative, self-reliance, accuracy, and, above all, perseverance. Nearly two million people in the United States enroll in home study courses each year. The need to know has never been more important than it is today.

Home Study is for those who cannot take courses in residence, need credit toward a degree, need courses for entrance requirements, need courses to complete high school, are teachers and need to qualify for certification, are serving their country in the armed forces, are Korean veterans and wish to maintain their entitlement, are working in industry and wish to acquire broader culture or to improve their skills, are professional people with a desire for continued intellectual and professional progress, or are desirous of pursuing some course for personal development and interest.

A Home Study Catalog is free to anyone who calls at the Home Study department in the Physical Plant Building, Room 16, or who requests a copy by telephone or mail. The catalog gives detailed descriptions of all courses offered, the college credits for each course, and the cost of registration and textbooks. Registration information, the time allowed to complete courses, and the procedure for taking final examinations are contained in the catalog.

Brigham Young University has been approved to offer home study courses through U.S.A.F.I. to the men and women in the armed forces and to the Korean veterans. Information for registration may be obtained from the Home Study department.

The Home Study Department of the Adult Education and Extension Services of Brigham Young University offers college courses to gifted high school seniors. The purpose of this program is to supplement the curriculum for gifted high school seniors who have time and ability to pursue a college course during their senior high school year. It is not intended in any way to interfere with the regular study program of high school students. The courses offered gifted high school seniors are lower division college courses and offer credit toward the baccalaureate degree at the Brigham Young University.

Further information on registration fees and application forms for this special program are found in the Home Study Catalog.

Statistical Summaries, 1957-58*

ENROLLMENT SUMMARY — 1957-58

PROVO, UTAH

AS OF AUGUST 31, 1958

College	Freshman	Sophomore	Junior	Senior	5th Year Professional	Graduate	Men	Women	Total
Biological and Agricultural Science	202	241	216	209	2	7	793	84	877
Commerce	369	417	346	392	3	9	1095	441	1536
Education	358	401	559	594	3	46	611	1350	1961
Family Living	241	171	133	98		5	8	640	648
Fine Arts	238	154	124	141	1	4	316	346	662
Graduate School		3	1	1	7	1550	1070	492	1562
Humanities and Social Sciences	206	263	270	269	2	10	637	383	1020
School of Nursing	84	41	31	40	1		2	195	197
Physical and Engineering Sciences	561	378	287	276	60	11	1538	35	1573
Recreation, Health, Physical Education, and Athletics	110	79	92	102	1	9	276	117	393
General Registration	1396	434	67	8	1	4	1027	883	1910
Total Daytime College Students on Campus	3765	2582	2126	2130	81	1655	7373	4966	12,339**
Evening College Students on Campus							562	590	1152
Net Cumulative Total College Level									13,491

B.Y.U. LABORATORY SCHOOLS

Junior High School	85	71	156
Senior High School	94	53	147
Elementary School	97	101	198

Total, B.Y.U. Laboratory Schools

	276	225	501
			13,992

TOTAL STUDENTS ON B.Y.U. CAMPUS

* Complete for the school year 1957-58, including Summer School 1958. Figures for 1958-59 are not given because they will not be complete until the close of Summer School 1959. The 1958-59 enrollment to date shows an increase of approximately 650 over 1957-58 enrollment.

** Total enrollment for Autumn, Winter, and Spring Quarters only is 10,847. Total Summer School enrollment is 3,266, of whom 1,492 attended Summer School only.

BRIGHAM YOUNG UNIVERSITY 1957-58 CUMULATIVE AUTUMN, WINTER, SPRING, AND SUMMER ENROLLMENT,
REGULAR DAY TIME COLLEGE STUDENTS FROM STAKES AND MISSIONS AS OF AUGUST 31, 1958

STAKES

Alberta	66	Dallas	26	Millard	53	Millcreek	27
Albuquerque	6	Davis	31	Hayward	49	Minidoka	27
Alpine	2	Denver	76	Highland	37	Missoula	18
American Falls	201	Deseret	83	Hillside	30	Moapa	48
Ashley	24	Detroit	27	Holladay	37	Monterey Bay	2
Atlanta	44	Duchesne	20	Honolulu	23	Montpelier	35
Bakersfield	8	East Cache	11	Houston	16	Monument Park	34
Bannock	38	East Jordan	56	Humboldt	20	Monument Park West	2
Bear Lake	13	East Long Beach	48	Hyrum	7	Moon Lake	18
Bear River	15	East Los Angeles	79	Idaho	9	Morgan	13
Beaver	21	East Mesa	38	Idaho Falls	52	Moreni	14
Ben Lomond	25	East Mill Creek	16	Inglewood	35	Mt. Graham	34
Benson	26	East Ogden	30	Juab	60	Mt. Logan	69
Big Horn	8	East Phoenix	49	Juarez	23	Mt. Ogden	18
Blackfoot	62	East Provo	375	Kanab	24	Mt. Rubidoux	46
Blaine	27	East Rigby	20	Kansas City	11	Murray	33
Boise	11	El Paso	29	Kearns	1	Nampa	76
Bonneville	41	Emery	69	Kearns North	1	Nebo	110
Bountiful	35	Emigration	11	Klamath	35	Nevada	60
Bountiful North	45	Ensign	24	Kolob	114	New Orleans	10
B.Y.U. Campus	329	Farr West	11	Lake Mead	34	New York	37
Burbank	59	Flagstaff	16	Lake View	14	North Box Elder	26
Burley	48	Florida	15	Las Vegas	99	North Carbon	24
Butte	26	Franklin	21	Layton	23	North Davis	26
Cache	12	Fresno	28	Lehi	106	North Idaho Falls	60
Calgary	25	Garfield	14	Lethbridge	54	North Jordan	24
Cannon	10	Glendale	72	Liberty	14	North Pocahontas	13
Canyon Rim	18	Gooding	36	Long Beach	52	North Rexburg	22
Carbon	53	Grand Coulee	45	Lorin Farr	21	North Sacramento	46
Cassia	28	Grand Junction	30	Los Angeles	64	North Sanpete	46
Cedar	28	Granite	26	Lost River	12	North Sevier	22
Chicago	28	Grant	28	Lyman	46	North Tooele	21
Columbia River	48	Grantsville	22	Malad	28	North Weber	8
Cottonwood	31	Great Falls	48	Maricopa	39	Nyssa	54
Covina	26	Gridley	47	Mesa	64		
		Gunnison	25	Midvale	7		

[illegible]

MISSIONS

Argentine	1
Australian	5

**BRIGHAM YOUNG UNIVERSITY 1957-58 CUMULATIVE AUTUMN, WINTER,
SPRING AND SUMMER ENROLLMENT, REGULAR DAYTIME COLLEGE
STUDENTS FROM THE COUNTIES OF UTAH AS OF AUGUST 31, 1958**

Beaver	23	Rich	11
Box Elder	91	Salt Lake	874
Cache	56	San Juan	50
Carbon	77	Sanpete	117
Daggett	11	Sevier	166
Davis	169	Summit	54
Duchesne	68	Tooele	84
Emery	70	Uintah	81
Garfield	41	Utah	3204
Grand	14	Wasatch	100
Iron	43	Washington	69
Juab	64	Wayne	22
Kane	19	Weber	203
Millard	137		
Morgan	14		
Piute	23		5955

**REGISTRATIONS THROUGH ADULT EDUCATION AND EXTENSION SERVICES
CALENDAR YEAR 1958**

Academic College Co-sponsoring Courses and Programs	Credit Courses (Including Home Study)		Non-credit Courses (Programs Having 4 or More Class Meetings)		Non-credit Attendance (Programs Having Fewer Than 4 Class Meetings)		Total	
	Enroll- ments	*F.T.E.S.	Enroll- ments	*F.T.E.S.	Enroll- ments	*F.T.E.S.	Enroll- ments	*F.T.E.S.
Inter-College	94	3.06	638	23.09	11105	430.96	11837	456.61
Hum. & Soc. Sci.	3327	279.14	655	15.34	2	.13	3984	294.61
Religion	1888	127.65	1783	63.57	4	.20	3675	191.42
Education	1724	128.15	75	2.65	3	.20	1802	131.00
Phys. & Eng. Sci.	1083	81.63	194	4.80			1277	86.43
Fine Arts	845	51.12	192	14.60			1037	65.72
Commerce	594	43.17	142	5.37			736	48.54
Rec., Phys., Health	573	29.04	1340	31.24			1913	60.28
Bio. & Agr. Sci.	817	59.23	21	.77			838	60.00
Family Living	542	34.16	172	4.92			714	39.08
Nursing	none		none					
High School	186	14.02					186	14.02
TOTAL	11673	850.37	5212	166.35	11114	430.99	27999	1447.71

*F.T.E.S. means "Full-Time Equivalent Student." One full-time equivalent student is determined as follows:

- (1) if credit, student credit hours divided by 45
- (2) if non-credit, student hours of participation
 - divided by 375 if lecture type class
 - divided by 525 if lecture-lab combination
 - divided by 750 if studio or shopwork
 - divided by 1125 if athletic type class

Index

Academic Growth and Recognition	47	B.Y.U. Stake	79
Academic Standards	73	B.Y.U. Women's Organization	78
Academic Units, Other,		Calendar, 1959-60	vi
Administrative Officers of	4	Calendar of Events	1
Accounting	150	Campus Housing	83
Accreditation	47	Certificate, Elementary School	96
Achievement Awards	72	Certificate, Secondary School	100
Acoustical Engineering	238	Certification for Teaching	95
Administration and Faculty	3	Chairmen of Departments	4
Administrative Officers, Non-		Chemical Engineering	205
Instructional Units	6	Chemistry	208
Administrative Officers of		Church History	275
Other Academic Units	4	Church Organization and	
Administrative Officers,		Administration	322
University	3	Civil Engineering	213
Admission Requirements	52	Classes, Withdrawal from	54
Adult Education Centers	413	Classical Languages	320
Adult Education Services	412	Classification of Students	54
Agricultural Economics	155	Clothing and Textiles	218
Agricultural Technology	399	Cluff, Benjamin	41
Agronomy	158	Collections, Science and Art	48
Air Science	162	College, General	118
Air Science Allowances	164	College Instruction	305
Air Science, Course Fee Deposit	164	College of Biological and	
Air Science, Enrollment	162	Agricultural Sciences	89
Air Science, Extra-curricular		College of Business	92
Activities	163	College of Education	94
Air Science, Military Obligation	163	College of Family Living	113
Air Science, Period of Non-		College of Fine Arts	117
attendance	164	College of Humanities and	
Air Science, Program	162	Social Sciences	125
Air Science Program, Veterans	163	College of Physical and	
Akkadian	321	Engineering Sciences	134
Alumni Association	81	College of Recreation, Physical and	
American History and Govern-		Health Education, and Athletics	136
ment Requirement	270, 370	College of Religious Instruction	138
Animal Husbandry	166	Colleges, Deans of	3
Applied Music	336	Colleges and School	88
Arabic	321	Comparative Literature	242
Aramaic	321	Composite Majors	101
Archaeological Collection	48	Contents	iv
Archaeology	171	Correspondence Courses	421
Art	175	Cost of Attending B.Y.U., Estimated	70
Art Collections	49	Councils	7
Assemblies, Devotional and		Counseling Service	71
Student	79	Counselor for Women	72
Assemblies, Forum	79, 257	Course Divisions	53
Assistantships	140	Course of Study, Election of	53
Audio-Visual Service	413	Courses, General Education	57
Auxiliary Services	83	Courses, List of	148
Awards	72	Credit in One Quarter,	
Bacteriology	181	Limitation on	55
Banking	198	Credits	54
Bible and Modern Scripture	184	Dairy Husbandry	166
Biblical Languages	187	Dean of Students	71
Biological and Agricultural		Deans and Directors of Schools	4
Sciences, College of	89	Deans' Council	7
Biological Science, two-year program	118	Degree, Doctor of Education	146
Board of Trustees	3	Degree, Doctor of Philosophy	142, 145
Book Store	87	Degree, Master's	142, 144
Botanical Collection	48	Department Chairmen	4
Botany	188	Departmental Fees	68
Brimhall, George H.	42	Departmental Organizations	78
Business Administration	191	Departments, List of	149
Business, College of	92	Deposits	68
Business Education and Office		Destiny Fund	81
Management	192	Devotional Assemblies	79
Business Management	198	Director of Division	4
Business Program, Pre-Graduate ..	92, 204	Discipline	73
Business Technology	400	Dissertation, Doctoral	146
Business, two-year program	118	Division, Director of	4
B.Y.U. Destiny Fund	81	Doctor of Education	146
B.Y.U. Founding and Philosophy	39	Doctor of Philosophy	142, 145

Doctoral Dissertation	146	General Administrative Officers	3
Dormitory Facilities	83	General and Comparative Literature	242
Dramatic Arts	390	General College	118
Drawing (Graphics)	299	General Education Courses	57, 138
Economics	222	General Education Program	57
Economics, Agricultural	155	General Instruction	301
Economics and Management of the Home	225	General Music	336
Education, College of	94	Geographical Organizations	76
Education, Professional Preparation, Elementary	96	Geography	258
Education, Professional Preparation, Secondary	100	Geological Collections	50
Education, two-year program	119	Geological Engineering	262
Educational Administration	228	Geology	261
Educational Philosophy and Programs	230	German	314
Educational Psychology	232	Graduate Council	7, 140
Educational Research and Services	232	Graduate School	140
Educational Tests and Measurements	233	Graduate Studies in Religion	139
Egyptian	321	Graduation Requirements	56
Election of Studies	53	Grants-in-Aid	72
Electrical Engineering	236	Graphics	299
Elementary Certificate Requirements	96	Greek	320
Elementary Instruction	302	Growth of the Student Body	48
Elementary Laboratory School	110	Guidance, Courses in	232
Emeriti	8	Harris, Franklin S.	42
Employment, Student	74	Health Education	267
Engineering Sciences	134	Health Service, Student	75
Engineering Technology	401	Hebrew	321
English	242	High School Courses	111
English Education	248	High School Teacher's Certificate	100
English Placement Tests	241	Hispanic American Studies	126
English Standards	55	History	270
Entomological Collection	50	History and Philosophy of Religion	276
Entomology	407	History of Brigham Young University	39
Entrance Requirements	52	History of Education	230
Evaluation of Transfer Credit	64	Home Study	421
Evening School	414	Homemaking Education	278
Executive Committee of Brigham Young University	3	Honor Council	77
Extension Classes	416	Honors, Scholarship	63
Extension Publications	418	Horticulture	282
Extension Services	412	Housing and Design	285
Extension Services Council	7, 412	Housing, Married Students	85
Faculty, Administrative Officers	3	Housing, Student	76, 83
Faculty, Alphabetical List of	8	Human Development and Family Relationships	288
Faculty, Emeriti	8	Humanities	295
Faculty, Instructional and Administrative Staff	9	Humanities and Social Sciences, College of	125
Faculty, Special Instructors or Lecturers	32	Humanities Major	128
Family Living, College of	113	Humanities, two-year program	120
Family Living, Courses in	250	Industrial Arts	296
Family Living, General	250	Industrial Education	297
Family Living, two-year program	120	Industrial Management	200
Farm Mechanics	296	Intercollegiate Athletics	137
Fees, Departmental	68	Instruction	301
Fees and Deposits	68	Italian	316
Fees, General	65	Japanese	316
Fees, Laboratory Schools	69	Jensen, Christen	44
Fees, Late Registration	65	Journalism	307
Fees, Nursery School	70	Junior High School	111
Fees, Nursing	68	Laboratory Schools	109
Fees, Special College and Graduate Students	65	Laboratory Schools, Staff	35
Fees, Speech	67	Landscape Architecture	282
Fees, University	65	Languages	312
Fellowships	92, 140	Languages, Classical	320
Field Crop Production	158	Languages, Modern	313
Finance and Banking	199	Latin	320
Financial Aids	72	Law, International	370
Fine Arts Collection	49	L.D.S. Church Organization and Administration	322
Fine Arts, College of	117	Leadership Week	416
Fine Arts, two-year program	120	Lecture Service, Extension	417
Food and Nutrition	252	L.D.S. Theology, Church Organization and Administration	322
Food Service	85	Library Facilities	50
Foreign Students Adviser	72	Library Science	325
Forum Assemblies	79, 257	Linguistics	321
French	313	Literature, General and Comparative	242
		Loan Funds	79
		Lyceums	79
		M.B.A. Program	93

Maeser, Karl G.	40	Private Instruction Fees	67
Major and Minor Requirements	63	Professional Organizations	78
Major, Composite Teaching	101	Psychology	375
Major, Teaching	101	Public Relations	310
Management, Range	188	Publication Services, Extension	418
Marketing	193	Publications, Student	77
Married Students Housing	85	Purchasing Department	86
Master's Degree	142, 146	Radio	310, 391
Master's Thesis	146	Range Management	188
Mathematics	327	Recreation	380
McDonald, Howard S.	43	Recreation, Physical and Health Education, and Athletics, College of	136
Mechanical Engineering	331	Refunds	66
Medical Services	75	Registration	1
Medical Technology	89	Religious Background of Faculty	47
Minor, Teaching	101	Religious Education	384
Modern Languages	313	Religious Instruction, College of	138
Modern Scripture	184	Religious Opportunities	79
Moral Standards	73	Religious Organizations	79
Motion Picture Instruction	301	Requirements for Admission	52
Motion Picture Production	87	Requirements, Graduation	56
Music	336	Requirements, Major and Minor	63
Music, Applied	336	Requirements, Undergraduate	53
Music, Collection	49	Rental Agreements	83
Music, Education	345	Rentals	68
Music, Fees	67	Research and Statistics	232
Music, General	336	Reservation of Right to Change Courses	148
Music Theory	337	Residence	64
Non-instructional Units, Administrative Officers	6	ROTC Program	162
Non-Student Organizations	78	Russian	317
Nursing, Courses in	348	Schedule of Events	1
Nursing, College of	131	Scholarship Honors	63
Nursing, one-year program	121	Scholarships	72
Objectives	38	Scholarships, Graduate	140
Off-Campus Courses	416	School in the Social Order, The	231
Off-Campus Housing	85	Schools, Deans and Directors of	4
Office Management	192	Science Collections	49
On-Campus Adult Education	414	Scouting Education	405
Organizations, Non-Student	78	Scripture	184
Organizations, Professional and Departmental	78	Secondary Instruction	303
Organizations, Religious	79	Secondary Laboratory School	110
Organizations, Service	78	Secondary Teacher's Certificate	100
Organizations, Social and Geographical	78	Secondary Teachers, Registration of Prospective	63
Organizations, Student	76	Secretarial Training	194
Personnel and Guidance	232	Security Office	76
Ph.D. Program	142, 145	Semester System	148
Philosophy	276	Semitic Languages	187, 321
Philosophy of Education	230	Senior High School	111
Photo Studio	86	Service Organizations	78
Photography		Shorthand	194
Art 447, 448	175	Sigma Xi	78
Journalism 315, 316, 317, 318	309	Social Organizations	78
Physics 177	366	Social Science	125
Physical and Engineering Sciences, College of	134	Social Science, two-year program	123
Physical and Engineering Sciences, two-year program	122	Social Units	78
Physical Education	351	Sociology	385
Physical Education, two-year program	121	Soils	158
Physical Science, Courses in	363	Spanish	318
Physics	364	Special Courses and Institutes	416
Placement Bureau	74	Special Education	234
Placement, Teacher	109	Special Instructors	32
Placement Test for Freshman English	241	Speech	390
Political Science	370	Speech and Hearing Rehabilitation	391
Portuguese	316	Speech Education	395
Post Office	86	Speech Fees	67
Poultry Husbandry	166	Staff of the University	9
Pre-Dental Course	90	Standards, Academic	73
Pre-Dental, two-year program	118	Standards in English	55
Pre-Graduate Business Program	93	Statistical Summaries	422
Pre-Legal Course	126	Statistics	232
Pre-Medical Course	90	Stores and Receiving	86
Pre-Medical, two-year program	118	Student Assemblies	79
Pre-Optometry Course	91	Student Employment	74
Pre-Osteopathy Course	91	Student Health Service	75
Pre-Pharmacy Course	91	Student Housing	76, 83
Pre-Veterinary Course	91	Student Organizations	76
Press, University	87	Student Personnel Services	71
		Student Publications	77
		Students, Classification of	54
		Students Supply Association	87

Studies, Election of	53	Traffic and Security	76
Summer Quarter	2	Transfer Credit, Evaluation	64
Table of Contents	iv	Travel Study Tours	419
Teacher Placement	109	Trustees, Board of	3
Teacher's Certificate, Elementary School, Requirements for	96	Typing	194
Teacher's Certificate, Secondary, Requirements for	100	Undergraduate Colleges, Definition	88
Teachers, Secondary School, Pre- paration of Subject Matter	100	Unification Plan	53
Teaching, English Major	243	University Calendar	1
Teaching Majors	101	University Council	7
Teaching Majors, Composite	101	University Fees	65
Teaching Minors	101	University History	39
Technical and Semi-Professional Institute	398	University Press	87
Television	301, 391	University Today, The	46
Theatre and Dramatic Arts	390	Van Buren, Lotta, Collection	49
Theology	322	Veterans' Benefits	72
Theory of Music	337	Visual Aids Services	413
Thesis, Master's	145	Wilkinson, Ernest L.	44
		Withdrawal from Classes	54
		Youth Leadership	405
		Zoological Collections	50
		Zoology and Entomology	407





